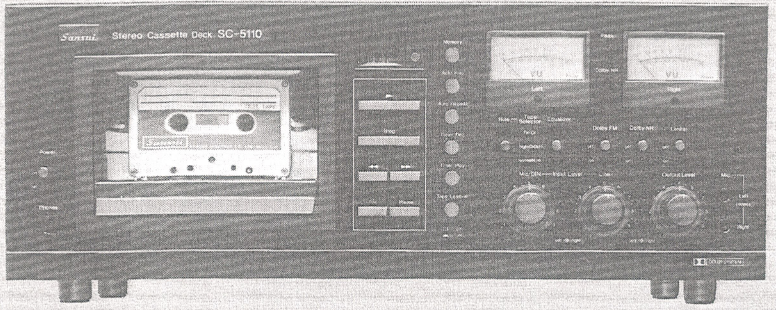
59

SERVICE MANUAL

STEREO CASSETTE TAPE DECK

SANSUI SC-5110



Sansui

SANSUI ELECTRIC CO., LTD.

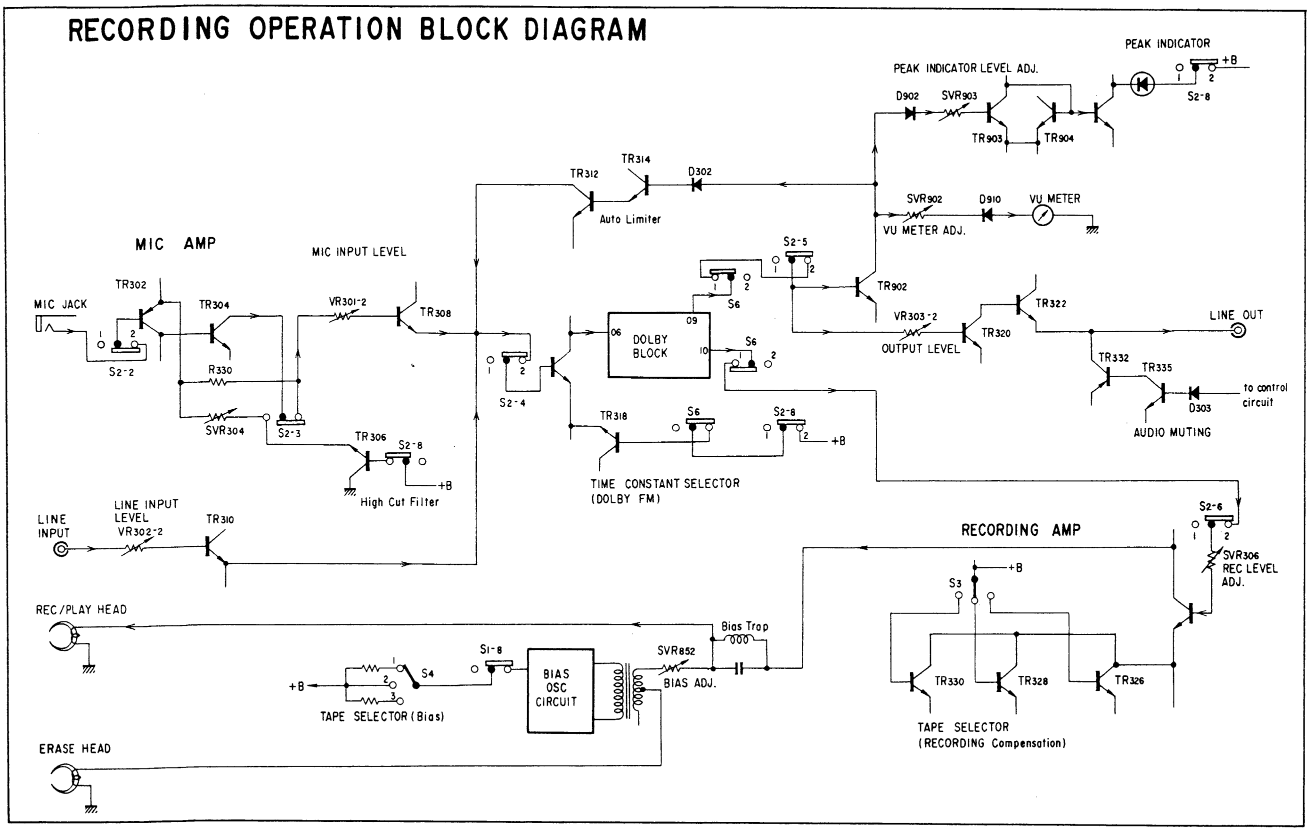
SPECIFICATIONS

TRACK	4-Track (2-Channel Stereo)
TAPE SPEED	4.8 cm/sec. (1-7/8 ips)
HEADS	Record/Playback: Ferrite Head Erase: Ferrite Head
MOTORS	Capstan: FG Servo DC motor Reels: DC Motor
WOW AND FLUTTER	within 0.05% WRMS
FAST WIND TIME	approximately 60 sec. (C-60)
FREQUENCY RESPONSE (Record/Playback)	
Normal Tape (LH)	20 to 15,000 Hz (30 to 13,000 Hz ±3 dB)
Ferrichromium Tape	20 to 17,000 Hz (30 to 14,000 Hz ±3 dB)
SIGNAL TO NOISE RATIO (Record/Playback)	
Ferrichromium Tape	
without Dolby Noise Reduction	better than 57 dB (weighted)
with Dolby Noise Reduction	better than 67 dB (above 5 kHz)
ERASURE FACTOR	more than 60 dB at 1,000 Hz
INPUT SENSITIVITY & IMPEDANCE (0 VU, 1,000 Hz)	
MIC	0.2 mV 200Ω ~ 10 kΩ
LINE	70 mV 100 kΩ
DIN Connector Socket	0.2 mV 4.7 kΩ
OUTPUT LEVEL (0 VU, 1,000 Hz)	
LINE	400 mV
DIN Connector Socket	400 mV
HEADPHONE IMPEDANCE	8Ω
BIAS FREQUENCY	85 kHz
POWER REQUIREMENTS	
Voltage	100, 120, 220, 240V 50/60 Hz 120V (Usable 110 ~ 130V) 60 Hz (For U.S.A. & Canada only)
Consumption	50W (rated)
DIMENSIONS	480 mm (18-7/8") W, 198 mm (7-7/8") H, 317 mm (12-15/32") D
WEIGHT	12.5 kg (27.6 lbs.) net 15.0 kg (33.1 lbs.) packed

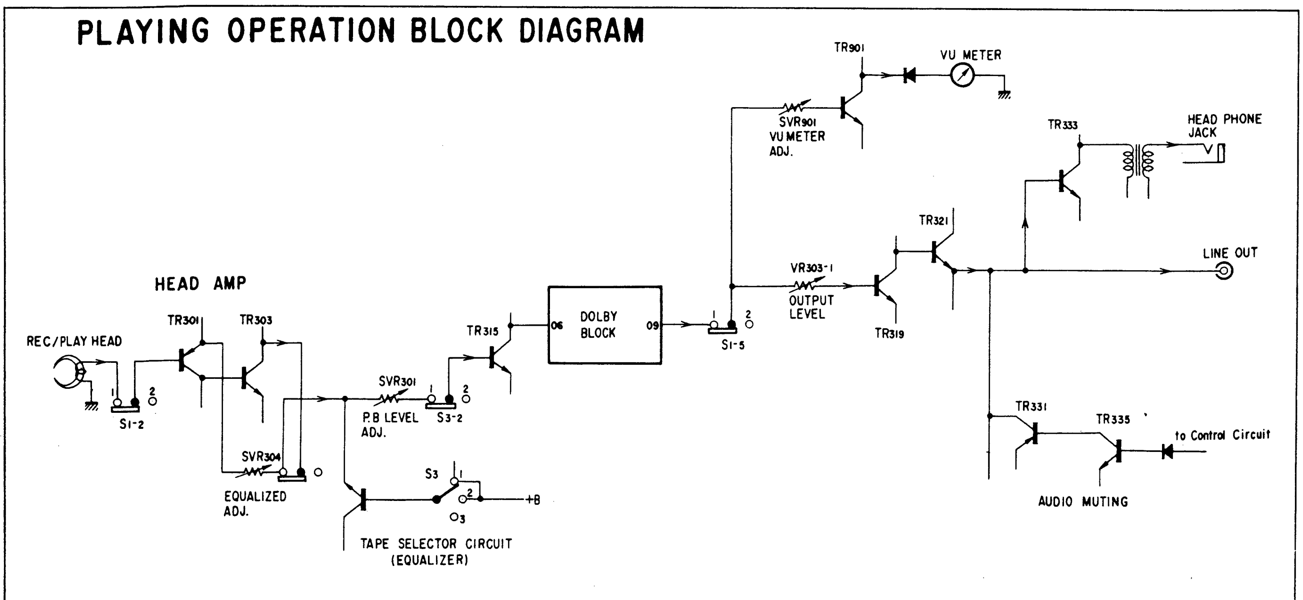
*** Design and specifications subject to change without notice for improvements.**

1. BLOCK DIAGRAM

◇Recording Operation Block Diagram


RECORDING OPERATION BLOCK DIAGRAM
PEAK INDICATOR
PEAK INDICATOR LEVEL ADJ.
D902
SVR903
TR903
TR904
S2-8
+B
TR314
TR312
D302
Auto Limiter
SVR902
D910
VU METER
VU METER ADJ.
MIC AMP
MIC INPUT LEVEL
S2-5
S6
TR902
TR302
MIC JACK
TR304
VR301-2
TR308
09
06
DOLBY BLOCK
10
VR303-2
OUTPUT LEVEL
TR320
TR322
LINE OUT
S2-2
R330
S2-4
TR332
TR335
D303
to control circuit
AUDIO MUTING
SVR304
S2-3
TR306
TR318
TIME CONSTANT SELECTOR (DOLBY FM)
High Cut Filter
LINE INPUT
LINE INPUT LEVEL
VR302-2
TR310
S2-6
RECORDING AMP
SVR306 REC LEVEL ADJ.
S3
REC/PLAY HEAD
Bias Trap
S1-8
S4
BIAS OSC CIRCUIT
SVR852
BIAS ADJ.
TR330
TR328
TR326
TAPE SELECTOR (Bias)
TAPE SELECTOR (RECORDING Compensation)
ERASE HEAD

◇Playback Operation Block Diagram


PLAYING OPERATION BLOCK DIAGRAM
TR901
VU METER
SVR901 VU METER ADJ.
TR333
HEAD PHONE JACK
TR321
LINE OUT
HEAD AMP
VR303-1
OUTPUT LEVEL
TR301
TR303
TR315
06
DOLBY BLOCK
09
S1-5
TR319
REC/PLAY HEAD
S1-2
SVR301
P.B LEVEL ADJ.
S3-2
TR331
TR335
to Control Circuit
SVR304
EQUALIZED ADJ.
S3
+B
AUDIO MUTING
TAPE SELECTOR CIRCUIT (EQUALIZER)

PLAY/REC
S1-1~S1-8
S2-1~S2-8
1. PLAY
2. REC

TAPE SELECTOR (EQUALIZER)
S3
1. Fe-Cr
2. High
3. Normal

TAPE SELECTOR BIAS
S4
1. Fe-Cr
2. High
3. Normal

DOLBY NR
S5
1. OFF
2. ON

DOLBY FM
S6
1. OFF
2. ON

LIMITER
S7
1. OFF
2. ON

POWER
S8
1. OFF
2. ON

REC START
S10
1. OFF
2. ON

2. OPERATION OF CONTROL CIRCUIT

In the control circuit of the SC-5110, such kinds of ICs as NAND (INVERTED-OR), inverter, and monostable multivibrator are used.

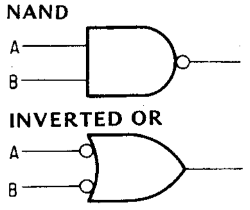
- NAND, INVERTED OR GATE

The symbol marks of NAND and INVERTED OR are shown in Fig. 2-1, 2-2.

The symbol marks are distinguished between NAND and INVERTED-OR in schematic diagram though the input and output relation is entirely the same as table.

NAND mark shows that the active state is obtained when all inputs turn to H. On the other side, the active state of INVERTED-OR mark appears when L is existed at least one input (output is H).

In logical operation, the function of NAND and INVERTED OR is entirely the same and their relations between input and output are listed in the table.



Input		Output
A	B	X
L	L	H
L	H	H
H	L	H
H	H	L

Fig. 2-1

- INVERTER

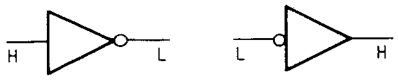


Fig. 2-2

- Monostable multivibrator

The monostable multivibrator is a circuit to output the pulse of a certain set width when the trigger is applied to the input. The input triggers are represented by the symbols _/‾ and _⎍_ in the circuit diagram, and the pulses generated from Q and $\overline{Q}$ are represented by the symbols _⎍_ and ‾⊔‾.

Note:
The symbol H or L shows that the voltage level is high or low respectively. In the case of SC-5110, H indicates +5V, and L indicates 0V.

Operation of Control Circuit

The outline of the operation of each function would be understood by referring to the Block Diagram on page 4. The operation of the PLAY function is explained in details below, the operation of other functions (REC, FF and REW) could be understood similarly to this PLAY function referring to the Block Diagram.

1) PLAY

At the initial state under being power switch ON, the gates of the IC-601a are all in the H, mean while its output is in the L. Further, the input pin 13 of IC-601a is turned to H by the inverter of IC-602c, and this state is held.

1. When S1 is pushed, pin 3 of the connector B is grounded.
2. The middle gate of IC-601a turns from the H to L.
3. When the input pin 2 of IC-601a turns from H to L, the output turns to the H. Then, the input pin 13 of IC-601a is turned to L by the inverter of IC-601c, and this state is held even after S① is released.
4. Even if the state before pushing S ① is REW or FF, the outputs of IC-601b and IC-607c are grounded by D601 and D602 through S1, and are turned to the L. Namely, the outputs of IC601b and IC-607c by which the functions REW and FF are performed respectively, are held at inactive state.
5. When the output of IC-601a turns to the H, the input pin 9 of IC-609b turns to H, its output to L, and the output of IC-603a to H, then the TR604 and TR611 turn ON, which causes the PLAY plunger, L802, to be ON, thus the lamp connected to H3 starts lighting.
6. When the output of IC-609b turns to L, input pin 10 of IC-604b turns to L, consequently its output turns to H, thereby TR608 and TR617 are turned to ON, which causes the HOLD plunger, L803 to be ON, thus the CASSETTE HALF is held tightly.

2) REC OPERATION AND PAUSE OPERATION

1. If a cassette whose erroneous erasing prevention tab has already been broken off is inserted into this set, the record protection switch S8 is turned OFF, which makes the output of IC-607d the L. Thereby input pin 1 of IC-608c turns to L. And the other one of IC-608c turns to H at the instant the output of IC-607a is changed to H by pushing the REC button. As a result, one of the gates of IC-608c is L and the other one is H, consequently the output turns to H. Then the output of IC-608d changes to L, thus, the resulted operation is the same as that at pushing the STOP button.
2. By pushing the REC button, the output of IC-607a turns to the H, and the both input of IC-609c turn to H and its output to L, further, TR605 and TR614 turn ON through the inverter, thereby the solenoid, L802, for REC-PLAY changeover is turned ON. Thus, the REC-PLAY mode of the amplifier is changed over. After these function, the recording operation begins to start by pushing the PLAY button.
3. Recording cannot be performed unless the REC button is pushed before pushing the PLAY button. If the REC button is pushed when the PLAY button has already been pushed previously, the PLAY operation itself is cut off by the action of D604. If the REC and PLAY buttons are pushed simultaneously, recording is not performed.
4. When the PAUSE button is pushed at the recording state, the output of IC-607b turns to H, the output of IC-611c turns to L, thereby the PAUSE lamp starts lighting. On the other hand, when the PAUSE button is pushed, the output of IC-601a turns to L, which makes the PLAY solenoid OFF state, thus the PLAY lamp goes OFF. But the HOLD solenoid L803, is kept to be ON because the output of IC-607a remains H.

3) AUTO STOP

1. At the usual tape running state, the signal which is the integral of the pulses from the senser, appears at the base of TR602, therefore TR602 is in ON state.
2. IC-606 (SN74121) is a monostable multivibrator. When TR602 is ON, that is, when the pin 5 of IC-606 is kept at the L, the output of H is delivered from $\overline{Q}$. Thereby the output of IC-608a is L, and the output of IC-608b is H.
3. If the run of the tape is stopped in this state, TR602 turns to OFF, and the input of the pin 5 of IC-606 turns to H. At this time, the monostable multivibrator IC-606 (SN74121) generates a pulse (L level) of a fixed width determined by C621 and R639 from $\overline{Q}$. Thereby the output of IC-608a turns to H, and the output of IC-608b turns to L, thus the operation is just the same as the STOP button is pushed.

4) MEMORY REWIND

1. In the rewind state, TR603 is ON state. When the MEMORY REWIND switch (S7a) is turned ON and the indication of the counter reaches to "000" (S9 turns ON at this moment), the base of TR602 is electrically grounded through R643, pin 1 on connector A, S9, S7a, and TR603. Thus the tape running is stopped, which results in the same operation as the 5) AUTO STOP (automatic stop) is actuated.

5) AUTO PLAY

1. When the AUTO PLAY button is depressed, the pin 7 on connector A and pin 3 on connector A is connected through diode D707.
2. When the automatic stop operates at the completion of rewind operation, the input 9 of IC-612 turns to L, and the output to H. When the input, pin 2, of IC-605a which is the monostable multivibrator, turns from L to H, the pulse with a fixed width determined by C619 and R637 is generated from pin 13 of the IC-605a.
3. At the instant that the rewind operation is completed, the output of IC-601c turns from L to H, and the output of IC-601b turns from H to L, thus the both inputs of IC-611a are reversed. However, the reversed time of the upper gate (pin 12) of IC-611a is delayed by R617 and C615 than that of the lower gate (pin 13). Due to this delay, there exists a period that both input gates of IC-611a are H, which makes the output turn from H to L, consequently, the output of IC-611b is turned from L to H. One of the inputs of IC-611d is connected to the output of IC-611b, and the other is connected to the monostable multivibrator IC-605a. Therefore, during the time that the pulse is generated by the monostable multivibrator, the output of IC-611d is L, and the output of IC-611b is H, consequnetly, the output of IC-603e turns to L. That is, when the rewind operation is completed, pin 3 on connector A is grounded to make the PLAY state.

6) AUTOMATIC REPEAT

When the AUTO REPEAT button is depressed, the connections from pin 7 on connector A through diode D707 to pin 3 on connector A and from pin 8 on connector A to pin 4 on connector A are joined. After finishing the play operation, the output of IC-603d is turned to L by this connection from pin 8 on connector A to pin 4 resultly the rewind operation is performed. After finishing rewind operation, the output of IC-603e is turned to L by this connections from pin 7 of connector A through diode D707 to pin 3 on connector A, resultly the automatic play operation is performed.

7) TIMER PLAY

When the TIMER PLAY button is depressed, the pin 7 on connector A and pin 5 on connector A are joined through the diode D706. When the power is turned ON, the output of IC-610c turns to L, which makes IC601a active state, thereby the play operation is performed.

8) TIMER REC

When the TIMER REC button is depressed, the connections from pin 7 of connector A through diode D706 to pin 6 of connector A and from pin 6 of connector B to pin 5 of connector A are sequentially joined. When power is turned ON, the output of IC-610c turns to L, which makes IC-601a for PLAY and IC-607a for REC the active state respectively, thereby the recording operation is performed.

9) TAPE LEAD-IN

By pushing this button, S7f, the same result is caused as a trigger is inputted to the monostable multivibrator IC-613, which makes output Q generate a positive pulse. By this pulse, TR622 turns to ON state, which makes the state that pin No. 7 on connector B is grounded, in other words, the same state as the FF button is pushed. $\overline{Q}$ operates quite inversely to Q, that is, when the generation of the positive pulse is terminated, $\overline{Q}$ turns to the H, thus TR621 is ON state during the period that the charging current flows into C632, as the same result as the STOP button is pushed. After all, by pushing this switch, S7f, the FF operation is performed during the generation of the pulse with a fixed width determined by C633, C634, and R659 (i.e. during the leader tape running).

10) DELAY AT OPERATION CHANGEOVER

In this SC-5110, when one of the control button is pushed the operation state is stopped once, then moves to the next operation state indicated by the pushed control button. IC-604a serves for this function.

In the usual state, every four inputs of IC-604a is on the H, and C606, C607, C608, and C609 are charged. In this state, if the button for the operation desired to be performed is pushed, a charging current flows into the corresponding capacitor among C606 (FF), C607 (REWIND), C608 (REC), and C609 (PLAY), and the corresponding gate (input of IC-604a) turns from H to L, consequently, the output of IC-604a turns to H. Then, in a sequence, the output of IC-612a turns from H to L, the output of IC-612b from L to H, and $\overline{Q}$ of the monostable multivibrator IC-605a generates the negative pulse. By this, IC-609a (PLAY), IC-609c (REC), IC-609a (REWIND), and IC-609b (FF) which serve for the respective functions, remain the inactive state, namely, the stop state. The period of this state lasts, however, only the time corresponding to the width of the pulse generated by the monostable multivibrator IC-605a. Therefore, after the time equal to the pulse width passes, the desired operation starts to perform.

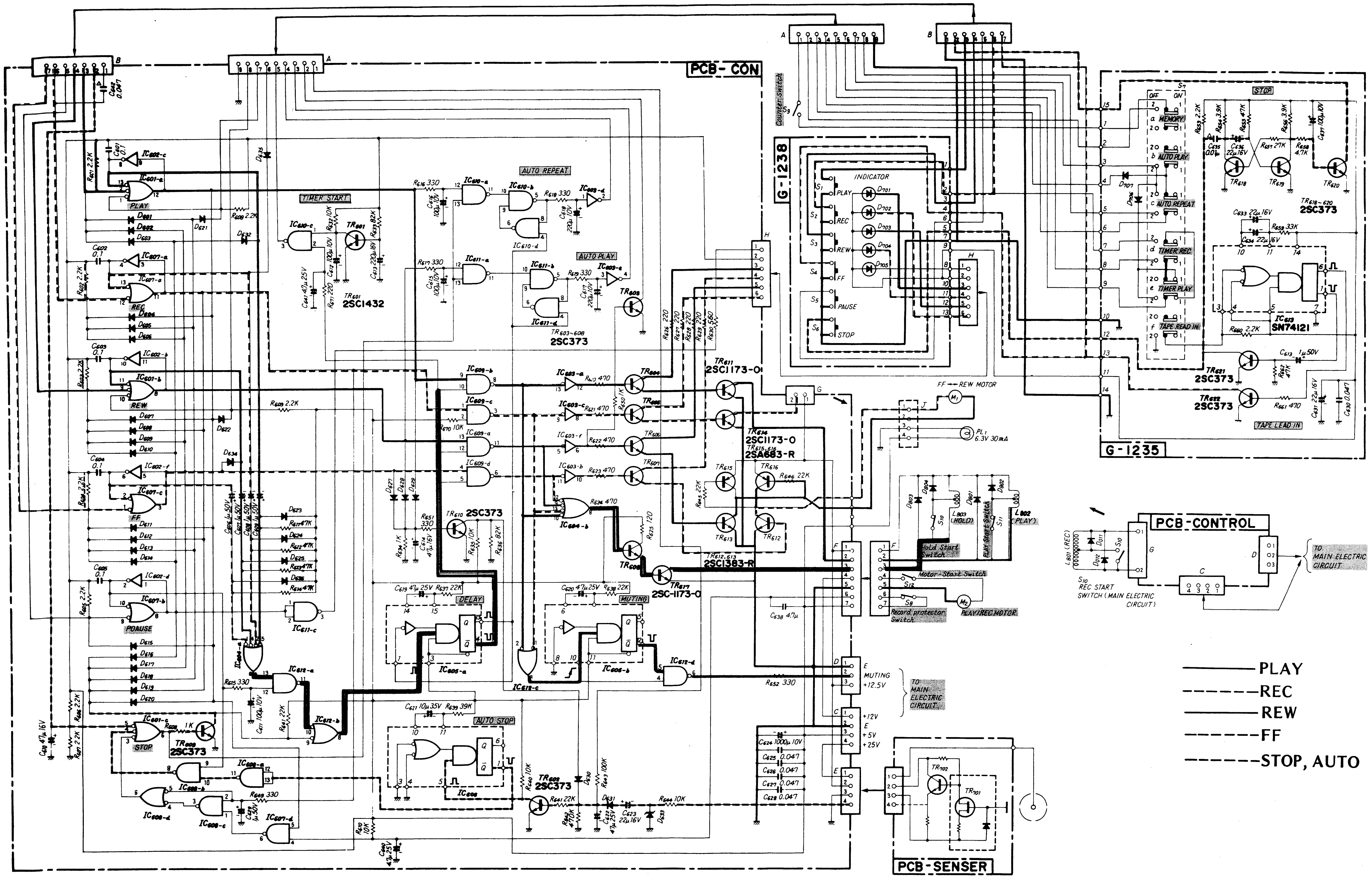
11) MUTING

At the time the PLAY and/or REC buttons are pushed, the output of the PLAY & REC circuit is muted. By pushing the buttons, output of IC-612c turns to H. Then in a sequence, the $\overline{Q}$ output of monostable multivibrator IC-605b generates negative pulse. By this, output of IC-612d turns to H.

Thereby, TR335 in the LINE OUTPUT amp circuit is turned ON, and the LINE OUT is grounded.

The period of the muting operation is determined by C620 and R638.

12) Block Diagram of Control Circuit


PCB-CON
G-1238
G-1235
PCB-CONTROL
PCB-SENSER
Counter Switch
INDICATOR
PLAY
REC
REW
FF
PAUSE
STOP
TIMER START
AUTO REPEAT
AUTO PLAY
DELAY
MUTING
AUTO STOP
MEMORY
AUTO REPEAT
TIMER REC
TIMER PLAY
TAPE READ IN
TAPE LEAD IN
TR601 2SC1432
TR603~608 2SC373
TR610 2SC373
TR611 2SC1173-O
TR614 2SC1173-O
TR615,616 2SA683-R
TR612,613 2SC1383-R
TR617 2SC-1173-O
TR609 2SC373
TR602 2SC373
TR618~620 2SC373
TR621 2SC373
TR622 2SC373
IC613 SN74121
FF ← REW MOTOR
PL1 6.3V 30mA
Hold Start Switch
Play Start Switch
Motor-Start Switch
Record protector Switch
PLAY/REC MOTOR
MUTING
+12.5V
TO MAIN ELECTRIC CIRCUIT
+12V
E
+5V
+25V
S10 REC START SWITCH (MAIN ELECTRIC CIRCUIT)
TO MAIN ELECTRIC CIRCUIT
PLAY
REC
REW
FF
STOP, AUTO

SYMBOL
△ Ceramic
◉ Mylar
▩ Styrol
□ Mica

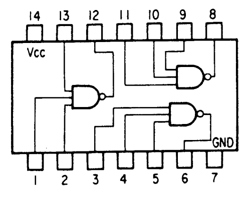
RESISTORS
Are in ohms ¼ Watts, ±5% Tolerance
Unless Otherwise Noted. K: kΩ, M: MΩ

CAPACITORS
Are in μF, Unless Otherwise Noted
P: pF

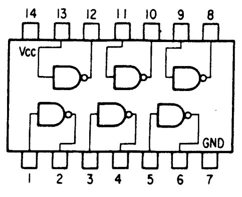
Each D.C. Voltage shows the nominal
Value in volts at during recording

SWITCHC

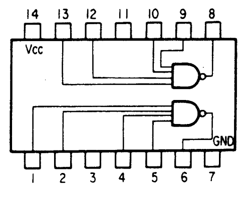
PLAY	S_1
REC	S_2
REW	S_3
FF	S_4
PAUSE	S_5
STOP	S_6
MEMORY	S_{7-a}
1. OFF	
2. ON	
AUTO PLAY	S_{7-b}
1. OFF	
2. ON	
AUTO REPEAT	S_{7-c}
1. OFF	
2. ON	
TIMER REC.	S_{7-d}
1. OFF	
2. ON	
TIMER PLAY	S_{7-e}
1. OFF	
2. ON	
TAPE LEAD-IN	S_{7-f}
1. OFF	
2. ON	
Record Protection SW	S_8
Counter SW	S_9
Hold Start SW	S_{10}
Play Start SW	S_{11}
MOTOR-START SW	S_{12}


14 13 12 11 10 9 8
Vcc
GND
1 2 3 4 5 6 7

IC601


14 13 12 11 10 9 8
Vcc
GND
1 2 3 4 5 6 7

IC602,603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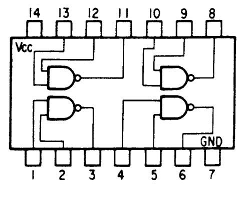
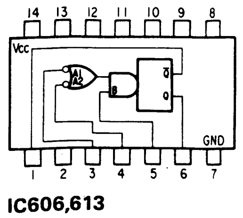
Vcc
GND
1 2 3 4 5 6 7

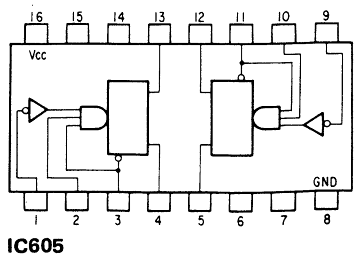
IC604


14 13 12 11 10 9 8
Vcc
GND
1 2 3 4 5 6 7

IC607~612


14 13 12 11 10 9 8
Vcc
GND
1 2 3 4 5 6 7

IC606,613


16 15 14 13 12 11 10 9
Vcc
GND
1 2 3 4 5 6 7 8

IC605

3. OPERATION OF MECHANISM ASS'Y

1) Releasing of brake and operation of hold lever

By pushing any one of the control buttons PLAY, REC, FF, and REW, the brake is released, and at the same time the hold lever operates to hold the cassette half. (The claw C moves horizontally.)

Operation sequence (Fig. 3-1)

Brake releasing ① → ② → ③ → ④

Hold lever operation ① → ④ → ⑤ → ⑥

2) PLAY operation

1. When the cassette half is inserted, the claw A of cassette lever is raised upward. Thereby the MOTOR START switch S12 is turned ON and the PLAY motor starts to rotate.
2. Then, the rotation is transmitted in sequence to the capstan belt, capstan flywheel, and play clutch as shown in Fig. 3-2.
3. By pushing the PLAY button, the play solenoid indicated in Fig. 3-1 turns to ON state. Then, the play clutch is pressed to the take-up reel in the order of ⑦-⑧-⑨-⑩-⑪-⑫, as can be seen in Fig. 3-1. As a result, the take-up reel is rotated, and the rotation is also transmitted to the counter belt.
4. On the other hand, the slide base is raised upward in the course of the operation ⑧, consequently, the section of ⑬ also rises upward, which pushes up the pinch roller. Thereby the pinch roller is pressed to the capstan.

3) REC operation

The basic operation is the same as the PLAY operation, but they are different in the following points.

1. When the REC button is pushed as stated in 1), joint ④ is raised, which lowers the claw B of the protector lever. By this, at the time of inserting a cassette, if its erroneous erasing protection claw has already been broken off, the RECORD PROTECTION switch does not turn ON, thus the control circuit does not operate.
2. By pushing the REC button, the REC solenoid (L801) is operated to switch over the PLAY/REC amplifier to REC.

4) FF and REW operation (Refer to Fig. 3-2)

1. By pushing the FF button or REW button, the FF/REW motor starts to rotate. The rotation of the FF/REW motor is transmitted to the FF/REW arm assembly through the FF/REW belt.
2. On the FF/REW arm assembly, the lower side pulley can move to the left or to the right, the fulcrum A as the center. This is because the direction of the FF/REW belt tension, changes in accordance with the change of rotating direction, forward and reverse, of the FF/REW motor.
3. The FF/REW arm assembly is pressed to the take-up reel in the case of FF, and is pressed to the supply reel in the case of REW, to rotate the respective reels.

Fig. 3-1

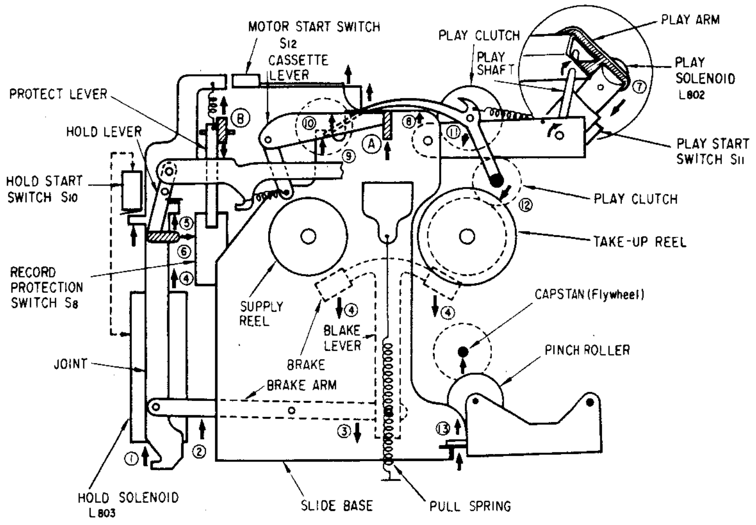
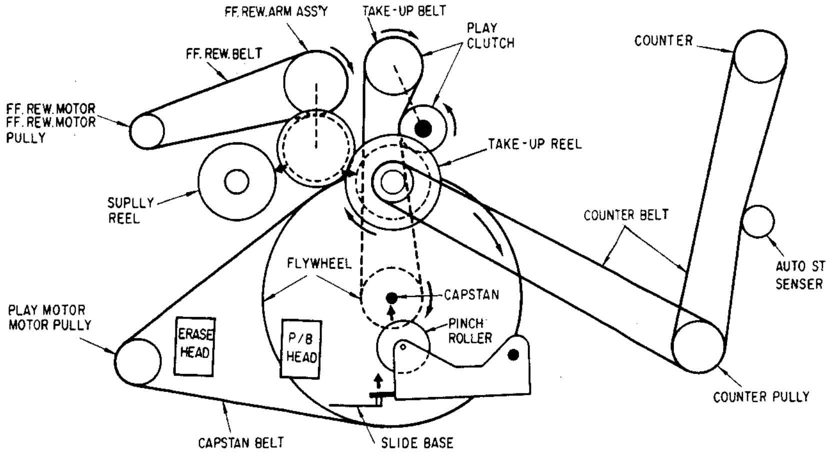


Fig. 3-2



4. REPLACEMENT OF MAIN PARTS

* Excepting Volume Knob, whole parts replacement must be performed after removing cabinet.

1) Replacement of Cabinet

1. Remove the screws fixing cabinet.
   (No.③ x 4 in Exploded View on page 19).

2) Replacement of Panel Ass'y

1. Extract 3 of volume knob.
2. Remove 6 of screws fixing panel ass'y.
   (No. ⑭ in Exploded View on page 19).

3) Replacement of Mecha Cover

(No. (88) in Exploded View on page 21).

1. Take the panel ass'y off.
   (See the replacement of panel ass'y).
2. Remove a couple of screws at upper corner of the mecha cover.
   (A & B in Fig. 4-1).

4) Replacement of Mechanism Ass'y & Control Section

(Mechanism, Control Circuit Board, G-1235 & G-1238).

* At repair, this section is able to be taken out from this Set.

1. Remove the 6 of fixing screws.
   (From A to F in Fig. 4-2).

5) Replacement of Capstan Belt & Take-Up Belt

1. Take out mechanism section by Replacement 4).
2. Loosen flywheel thrust bearing (E in Fig. 4-3).
3. Remove take-up belt.
4. Remove capstan belt.

* There is a gap appeared between capstan and mecha chassis after loosening flywheel thrust bearing.

6) Replacement of FF, REW Belt

1. Loosen pulley ass'y fixing screw. (F in Fig. 4-3).
2. Replace the belt.

7) Replacement of Counter Belt

1. Perform this replacement after removing mecha cover & cassette cover.
   (See Replacement 3),11)).

* Precise installation must be made for this replacement, otherwise, it causes deviation of counter indication.

8) Replacement of Head

1. Remove the mecha cover.
   (See Replacement 3)).
2. Remove 4 screws.
   (screws, A, B, C, D in Fig. 4-4).

9) Replacement of FF, REW, Motor

(No. ㉜ in Exploded View on page 21).

1. Remove motor support from mecha chassis.
   (Remove the screws A & B in Fig. 4-3).
2. Detach Motor from motor support.
   (Remove 3) of screws, S ⑪ in Exploded View on page 21).
3. Remove S ⑩, then, pull out the motor pulley.
   (See Exploded View on page for S ⑩).
4. Take the clasps away and detach the motor.
5. Remove the lead wires of motor.

10) Replacement of Play Motor

(No. ㉟ in Exploded View on page 21).

1. Take out mechanism ass'y by the procedure of 4).
2. Remove motor support from mecha chassis.
   (Remove the screws C & D in Fig. 4-3).
3. Detach motor from motor support.
4. Remove S⑩, then, pull out the motor pulley.
   (See Exploded View on page for S⑩).
5. Remove the lead wires of motor.

* Motor & servo circuit board are able to order together or individually.

11) Replacement of Pinch Roller Ass'y

1. Remove mecha cover.
   (See Replacement 3).
2. Take the cassette cover off.
   (Remove screws E, F in Fig. 4-4).
3. Detach the pinch roller.
   (Remove E Type washer G in Fig. 4-4).

12) Replacement of Take-up Reel

1. Take the cassette cover off.
   (See Replacement 11)).
2. Take out push spring, cassette arm ass'y.
   (No. (63) , (64) , (65) ,S⑱ , S(66) in Exploded View on page 21).
3. Remove the cap. ㉑ .
   (See Exploded View on page 21).
4. Remove Take-up Reel.
   (Remove E Type Washer of S④ in Exploded View on page 21).

13) Replacement of Supply Reel

1. Detach pinch roller ass'y.
   (See Replacement 11)).
2. Take slide base off.
   (Detach E Type washer Ⓖ and spring Ⓗ in Fig. 4-2).
3. Remove the cap.
   (No. ⑲ in Exploded View on page 21).
4. Take out Supply Reel.
   (Remove E Type washer of S④in Exploded View on page 21).

14) Replacement of Play Arm

(No. ㉚ , ㊻ in Exploded View on page 21).

1. Take off E type washer on Play Arm.
   (C in Fig. 4-1).
2. Take off E type washer on planger solenoid shaft.
   (D in Fig. 4-1).
3. Loosen screw D in Fig. 4-1 and take out Play Arm.

15) Replacement of FF, REW Arm Ass'y

1. Remove play arm ass'y
   (See Replacement 14)).
2. Take out FF, REW arm ass'y.
   (Remove E type washer, G in Fig. 4-3).

16) Replacement of Flywheel Bearing

1. Remove pinch roller ass'y.
   (See Replacement 11)).
2. Take out Flywheel Bearing.
   (Remove 3) of screws, I in Fig. 4-2).

17) Replacement of Mecha Chassis

To remove clutch ass'y and flywheel, mecha chassis must be taken off.

1. Remove play arm ass'y.
   (See Replacement 14)).
2. Remove servo circuit board of play motor.
   (the fixing screws are under this circuit board Fig. 4-3)
3. Remove 7) of screws fixing mecha chassis.
   (H in Fig. 4-3).

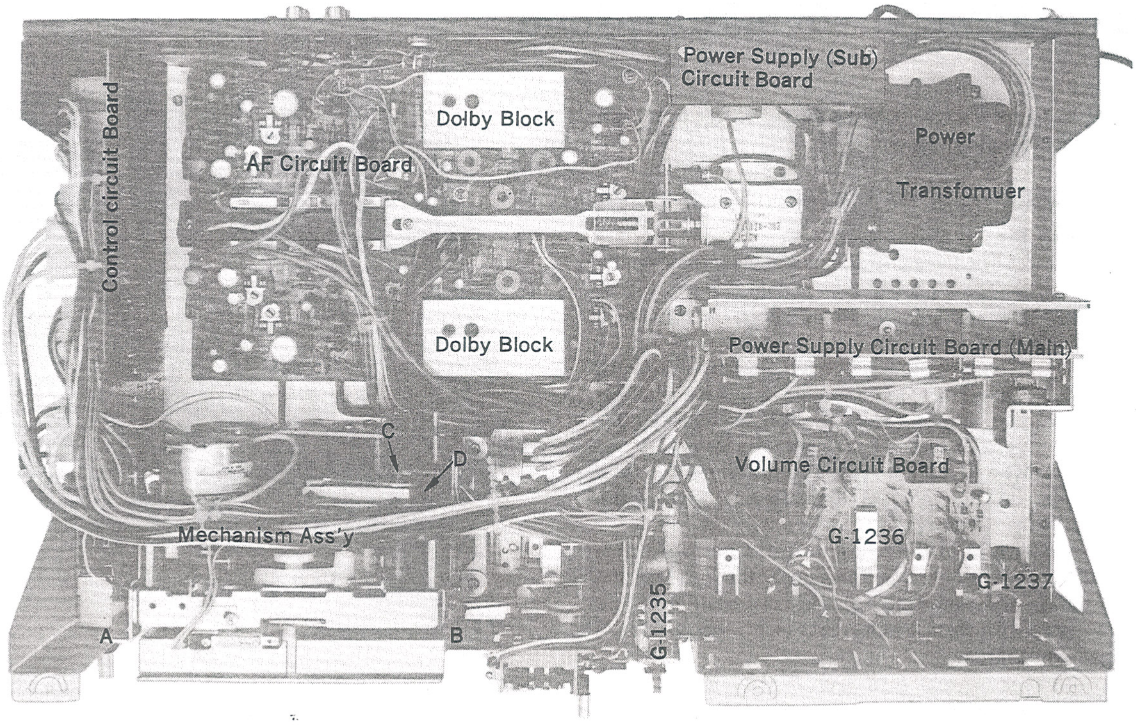

Control circuit Board
AF Circuit Board
Dolby Block
Dolby Block
Power Supply (Sub) Circuit Board
Power
Transfomuer
Power Supply Circuit Board (Main)
Volume Circuit Board
C
D
Mechanism Ass'y
G-1236
G-1237
G-1235
A
B

Fig. 4-1

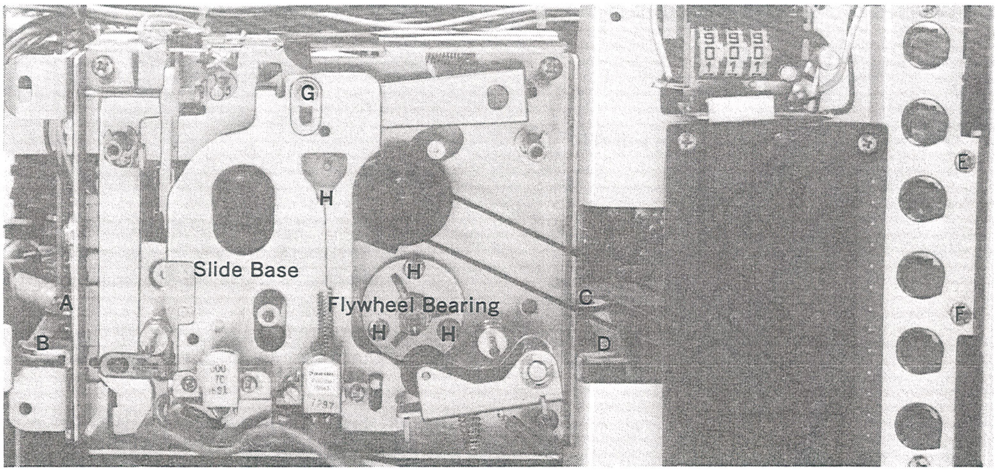

G
H
E
Slide Base
H
Flywheel Bearing
C
A
F
B
H
H
D

Fig. 4-2

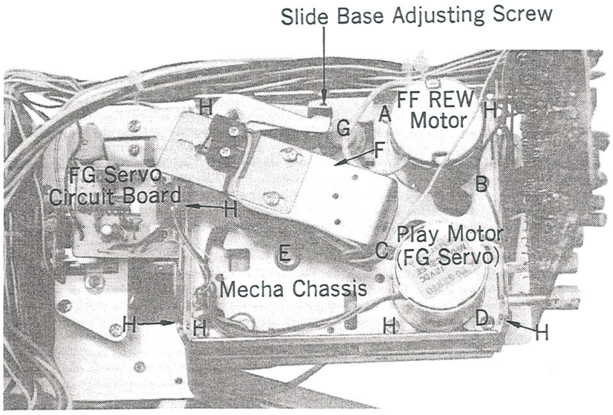

Slide Base Adjusting Screw
H
G
A
FF REW Motor
H
F
FG Servo Circuit Board
H
B
Play Motor (FG Servo)
E
C
Mecha Chassis
H
H
H
D
H

Fig. 4-3

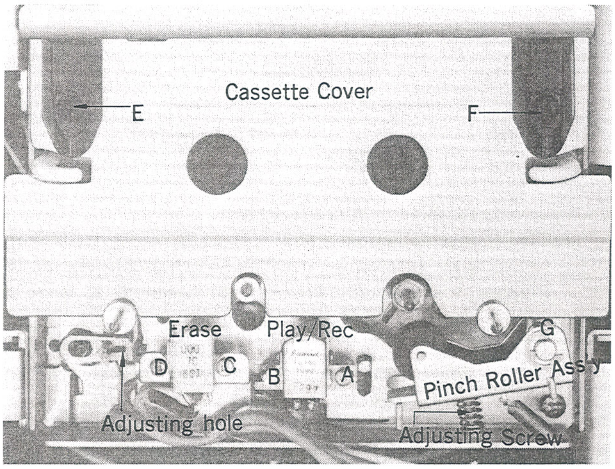

Cassette Cover
E
F
Erase
Play/Rec
G
D
C
B
A
Pinch Roller Ass'y
Adjusting hole
Adjusting Screw

Fig. 4-4

5. ADJUSTMENT OF MECHANISM

* Make sure to apply a screw-locking solution after completion of the mechanism adjustment.

1) Position Adjustment of the Solenoids and the Micro-Switches

On Model No. SC-5110, the digital IC and the plunger solenoids control the mechanism. Each plunger solenoid requires a large starting force when starting, and does not require a large holding force after having been started.

If a large current required to start each plunger is constantly flowed, high temperature may be produced in each plunger. Therefore, the minimum necessary current is set to flow after having been started, because of no need of a large current. Hence, the purpose of this adjustment is to turn steadily on the micro switches linked with each plunger solenoid, when the plunger solenoids are pulled.

In case of mismatching of this adjustment, the micro switches cannot turn on in spite of the turning-on of the plunger solenoids, resulting in the produce of high temperature from the plunger solenoids which may sometimes melt away surrounding lead wires or solders.

On the contrary, in case of turning-on of the micro switches continuously, the plunger solenoids cannot make starting even when the operating switch is pushed.

1) Position Adjustment of Holding Plunger Solenoid and Micro-Switch S10 (HOLD START S.W.) Fig. 5-3.

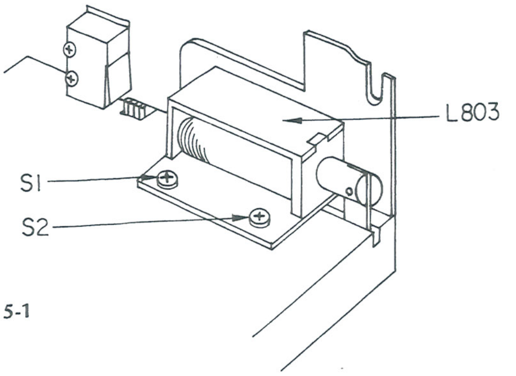


Fig. 5-1

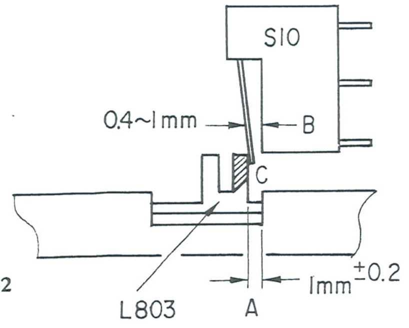


Fig. 5-2

* Remove the Cabinet before adjustment.

(1) The Plunger Solenoid L803 is fixed by using track-shape holes. After turning on the Play-Switch and operating the Plunger solenoid, fix this Plunger Solenoid so that its position has a gap B, as shown in Fig. 5-2.

Fasten two screws (S_1 and S_2) shown in Fig. 5-1, after having removed the play-motor. Also it is possible to adjust by bending the oblique line part.

(2) Confirm that the Micro-Switch can be changed-over steadily by operating PLAY and STOP action.

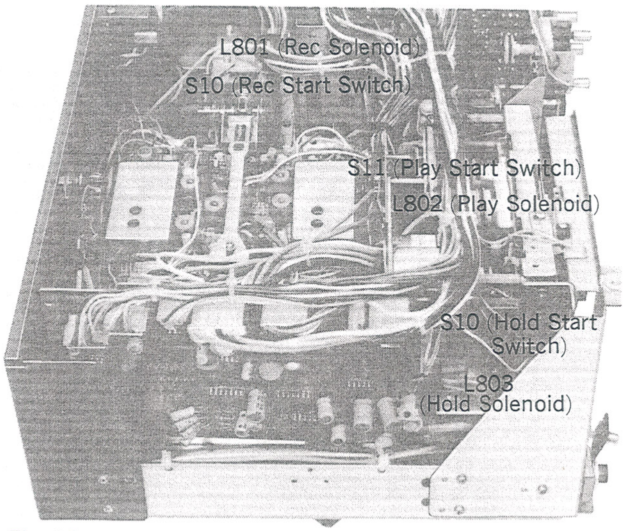


Fig. 5-3

2) Position Adjustment of PLAY Solenoid L802 and Micro-Switch S11 (PLAY START S.W.)

* Remove the Cabinet before adjustment.

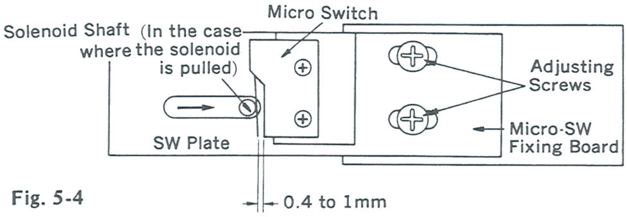


Fig. 5-4

(1) Push the PLAY button and make the PLAY state.

(2) Adjust the Micro-S.W. fixing board so that a gap between the shaft and the Micro-S.W. may lie within the range of 0.4 to 1 mm.

(3) Confirm that the Micro-Switch can be changed-over steadily by operating PLAY and STOP action.

3) Position Adjustment of REC Plunger Solenoid L801 and Micro-Switch S10 (REC START S.W.)

* Remove the cabinet before adjustment.

(1) The Micro-S.W. fixing board is fixed by using track-shape holes.

In the same way as the adjustment of the plunger solenoid and the micro switch (HOLD-PLAY), when the Plunger Solenoid is turned on (in recording state), adjust the Micro-S.W. fixing board so that a gap between the shaft and the Micro-Switch may lie within the range of 0.4 to 1 mm.

2) Brake Adjustment

* Before adjustment, remove the Cabinet, Front Panel Assembly, Mecha. Cover, and Cassette Cover.

1) At the state of STOP, adjust the Brake by inserting a ⊖ type screw driver into an adjusting hole, as shown in Fig. 5-5.

   In the case of insufficient Brake . . Turn the ⊖ type screw driver clockwise.

   In the case of excessive Brake . . . . Turn the ⊖ type screw driver counterclockwise.

2) The aim of Braking performance
   (1) In the case of an almost no-brake condition, the tape is loosened when the state is changed from PLAY to STOP. The revolution is too light when turning the reel by the hand, and also it is evident by visual inspection that the reel is kept apart from the brake-shoe.
   (2) In the case of an excessive brake condition, the wow-flutter becomes worse. The revolution is too heavy when turning the reel by the hand.
   (3) In the case of a proper brake condition, the tape is moderately stretched and the wow-flutter condition is good.

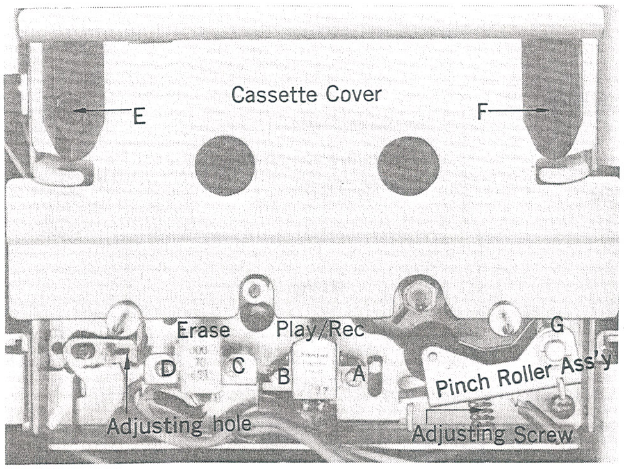


Fig. 5-5

3) Slide Base Adjustment

* Before adjustment, remove the Cabinet, Front Panel Assembly, and Mecha. Cover.

1) Make the PLAY state.
2) Loosen sufficiently the Slide Base adjusting screw in Fig. 5-6, up to the point where the pinch rollers begin apart from the capstan.
3) Fasten the adjusting screw slowly and stop it at the point where the screw becomes heavy.

   For the aim of this point, refer to the following points:
   (1) At first, fasten the screw slowly that the pinch rollers contact with the capstan when fastened more, the screw becomes hard to fasten slitly, this is the proper adjusted position.
   (2) In the case of the PLAY state, the play solenoid is being pulled-in and the Slide Base is being pushed-up. At this state, there is a point where no play is found when the Slide Base is lifted up. This is a proper adjusted position.

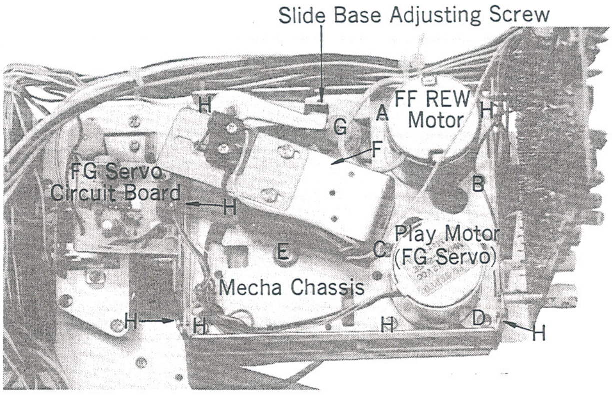


Fig. 5-6

4) Pressure Adjustment of Pinch Roller

* Before adjustment, remove the Cabinet, Front Panel Assembly and Mecha. Cover.

1) Before adjustment, confirm that the slide base position is proper. (See Adjustment 3)).
2) Make the PLAY state.
3) Put a spring-balance on a measuring position of the Pinch Roller pressure, and adjust it within the range of 380 ±30 g. (Fig. 5-7) by using the adjusting screw.

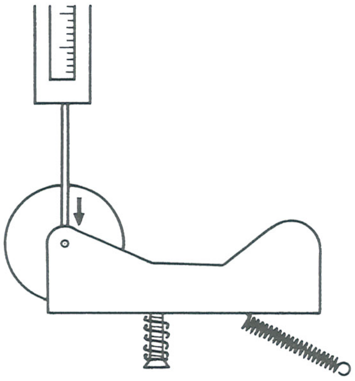


Fig. 5-7

5) Flywheel Thrust Bearing Adjustment

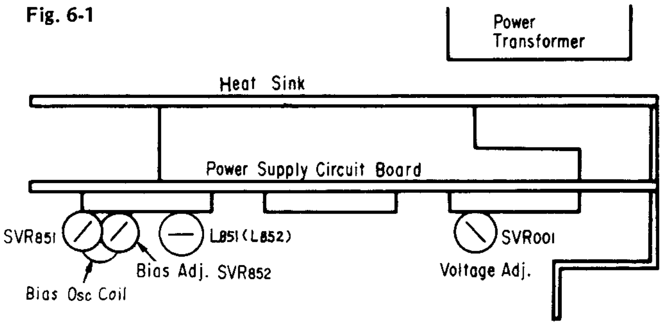
* Remove the Cabinet before adjustment.
Make sure to complete this adjustment, when the Capstan Belt, Take-Up Belt and the like are exchanged.
   (1) By using a screw driver, screw-in the Flywheel Thrust Bearing to its end. (fasten slightly) (E in Fig. 5-6).
   (2) Turn back (loosen) by one revolution from its end position where the Bearing is fully fastened.

6. ADJUSTMENTS OF ELECTRIC CIRCUIT

1) Power Supply Adjustment for Plunger Solenoid

EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR
DC Volt Meter	Pin 3 of connector D on Control Circuit Board	SVR001 Fig. 6-1	12.8V

Fig. 6-1


Power Transformer
Heat Sink
Power Supply Circuit Board
SVR851
L851 (L852)
SVR001
Bias Adj. SVR852
Voltage Adj.
Bias Osc Coil

2) Tape Speed Adjustment

Note: (1) Use Sansui Test Tape, SCT-53K (3 kHz signal is recorded on the tape).
(2) Connections are shown below.
(3) Output Level Volume . . . Max.

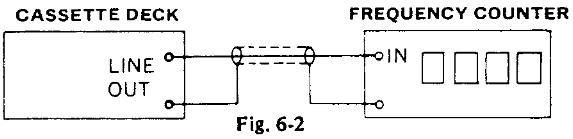

CASSETTE DECK
LINE OUT
FREQUENCY COUNTER
IN

Fig. 6-2

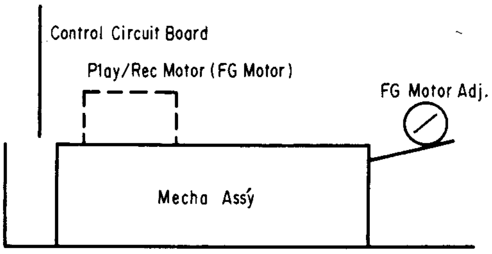

Control Circuit Board
Play/Rec Motor (FG Motor)
FG Motor Adj.
Mecha Ass'y
Front Panel Ass'y

Fig. 6-3

SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST FOR	ADJUST
TAPE SPEED ADJ.	Test Tape SCT-53K	LINE OUT Frequency Counter	Push the PLAY button and playback the Test Tape, SCT-53K	3000Hz	If not, turn semi-variable resistor in Fig. 6-3 until 3000 Hz ±2% is obtained.

※TAPE SELECTOR position

	MODE	REC	PLAY
TAPE	TAPE SELECTOR	BIAS, EQUALIZER	EQUALIZER
AGFA	Hifi-Low-Noise SUPER	normal (LH)	normal (LH)
BASF	LN LH LH super		
FUJI FILM	FL FX FX Duo		
MAXELL	LN UD-XLI		
SCOTCH	LD LH		
SONY	LOW-NOISE HF		
TDK	D SD ED		

	MODE	REC	PLAY
TAPE	TAPE SELECTOR	BIAS, EQUALIZER	EQUALIZER
AGFA	STEREOCHROM	high (CrO_2)	high (CrO_2)
BASF	chromdioxid		
MAXELL	UD-XLⅡ		
SONY	CR		
TDK	SA		
BASF	ferrochrom	Fe-Cr	Fe-Cr
SCOTCH	CLASSIC		
SONY	DUAD		
SCOTCH	Master	normal (LH)	high (CrO_2)
TDK	AD		
FUJI FILM	FX Jr	normal (LH)	normal (LH)
MAXELL	UD		high (CrO_2)

3) Playback Adjustment

Note: (1) Connections are shown below.
(2) Set the Dolby switch to be OFF.
(3) Set the Limiter Switch to be OFF.
(4) Set the Tape Selector to be NORMAL (LH).
(5) Output Level Volume . . . Max.

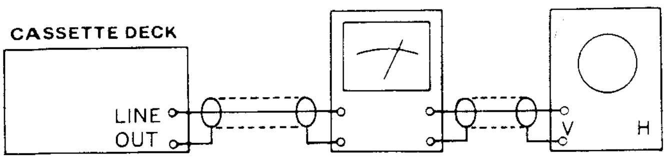
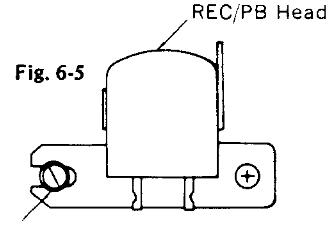

VTVM
SCOPE
CASSETTE DECK
LINE OUT
V
H

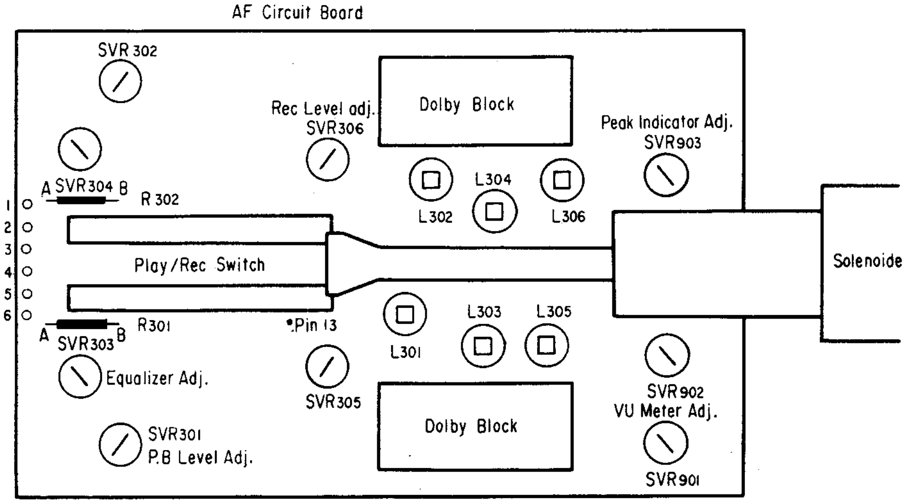
Fig. 6-4

Fig. 6-5


REC/PB Head
Adjusting screw

SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
REC/PB Head Adj.	SCT-F10KN (Test Tape)	LINE OUT VTVM	Push the PLAY button and playback the Test Tape, SCT-F10KN	The azimuth adjusting screw in Fig. 6-5.	Max. Output
Playback Level Adj.	SCT-L400N (Test Tape)	LINE OUT VTVM	Push the PLAY button and playback the Test Tape, SCT-L400N	SVR301 . . . L-CH SVR302 . . . R-CH Fig. 6-6.	560mV
High Frequency Equalization Check	SCT-F1K and SCT-F10KN (Test Tape)	LINE OUT VTVM	Push the PLAY button and playback the Test Tape, SCT-F1K and SCT-F10KN	SVR303 . . . L-CH SVR304 . . . R-CH Fig. 6-6.	Set same output levels 56mV from SCT-F1K and SCT-F10KN (standardize to 1 kHz)
	SCT-F10KN (Test Tape)		Push the PLAY button and playback the Test Tape, SCT-F10KN		In playback of SCT-F10KN, set the TAPE SELECTOR (Equalizer) to HIGH (CrO_2) position, then confirm the indication on VTVM dropping down approximately 4dB.

Fig. 6-6


AF Circuit Board
SVR302
Rec Level adj.
SVR306
Dolby Block
Peak Indicator Adj.
SVR903
A SVR304 B
R302
L304
L302
L306
1
2
3
4
5
6
Play/Rec Switch
Solenoide
R301
*Pin 13
L303
L305
L301
A SVR303 B
Equalizer Adj.
SVR305
Dolby Block
SVR902
VU Meter Adj.
SVR301
P.B Level Adj.
SVR901

*** List of Sansui Test Tapes**

Name of test tape	Recorded Frequency	Description
SCT-S3K	3 kHz	Speed Check, Wow & Flutter Check
SCT-L400N	400 Hz	Playback level and VU meter level adjustment
SCT-F1K	1 kHz	High frequency equalization check
SCT-F10KN	10 kHz	REC/PB head adjustment
SCT-SA [HIGH (CrO_2)]		Recording bias adjustment
SCT-LH [NORMAL (LH)]		REC/PB level adjustment
SCT-CS (Fe-Cr)		Frequency response check
SCT-F40	40 Hz	Playback frequency response check

4) Level Meter & Peak Indicator Adjustment

Note: 1) Complete the same adjustments on both channel.
2) Dolby FM, Dolby NR switch . . . OFF.

SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
Level Meter Adj.	LINE IN 1 kHz 70 mV Audio OSC.	LINE OUT VTVM	Push Rec button	Line Input Level Volume (Front Panel)	400 mV
	Same as above		Same as above	SVR901. . .L-CH SVR902. . .R-CH Fig. 6-6.	0dB . . . VU Meter
Peak Indicator Adj.	LINE IN 1 kHz 70 mV Audio OSC. (both channel)	Peak Indicator	Push Rec button	SVR903 Fig. 6-6.	Start Lighting . . . 70mV +6dB

5) Recording Bias Adjustment

Note: (1) Connections are shown below.
(2) Complete the same adjustments on both channel.

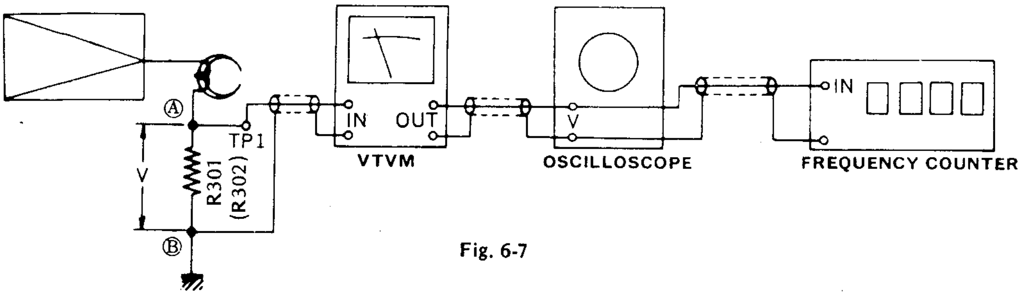


Fig. 6-7

SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
Recording Bias Adj.	No Input	R301.. L-CH R302.. R-CH VTVM Fig. 6-6, 6-7.	Push REC buttons. Tape Selector Bias High (CrO_2)	L851 (L-CH) L852 (R-CH) Fig. 6-1.	Max. Output
				SVR-851 (L-CH) SVR-852 (R-CH) Fig. 6-1.	1.6 mV
	Same as above	Same as above	Push Rec button. Tape Selector FeCR		Confirm 1.4 mV
	Same as above	Same as above	Push Rec buttons. Tape Selector Normal		Confirm 1.1 mV
Bias Frequency	No Input	R301.. L-CH R302.. R-CH Frequency Counter. Fig. 6-6, 6-7.	Push Rec button. Tape Selector Normal	Bias Osc. Coil Fig. 6-1.	85 kHz . . . Frequency Counter

6) Recording Level, Equalizer & Frequency Response Adjustment

Note: (1) Connections are shown below.
(2) Set the Tape Selector to be High (CrO_2).
(3) Complete the same adjustments on both channel.
(4) Set the Dolby switch to be OFF.

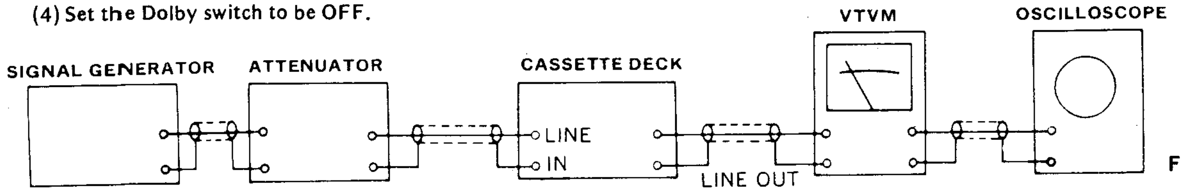


Fig. 6-8

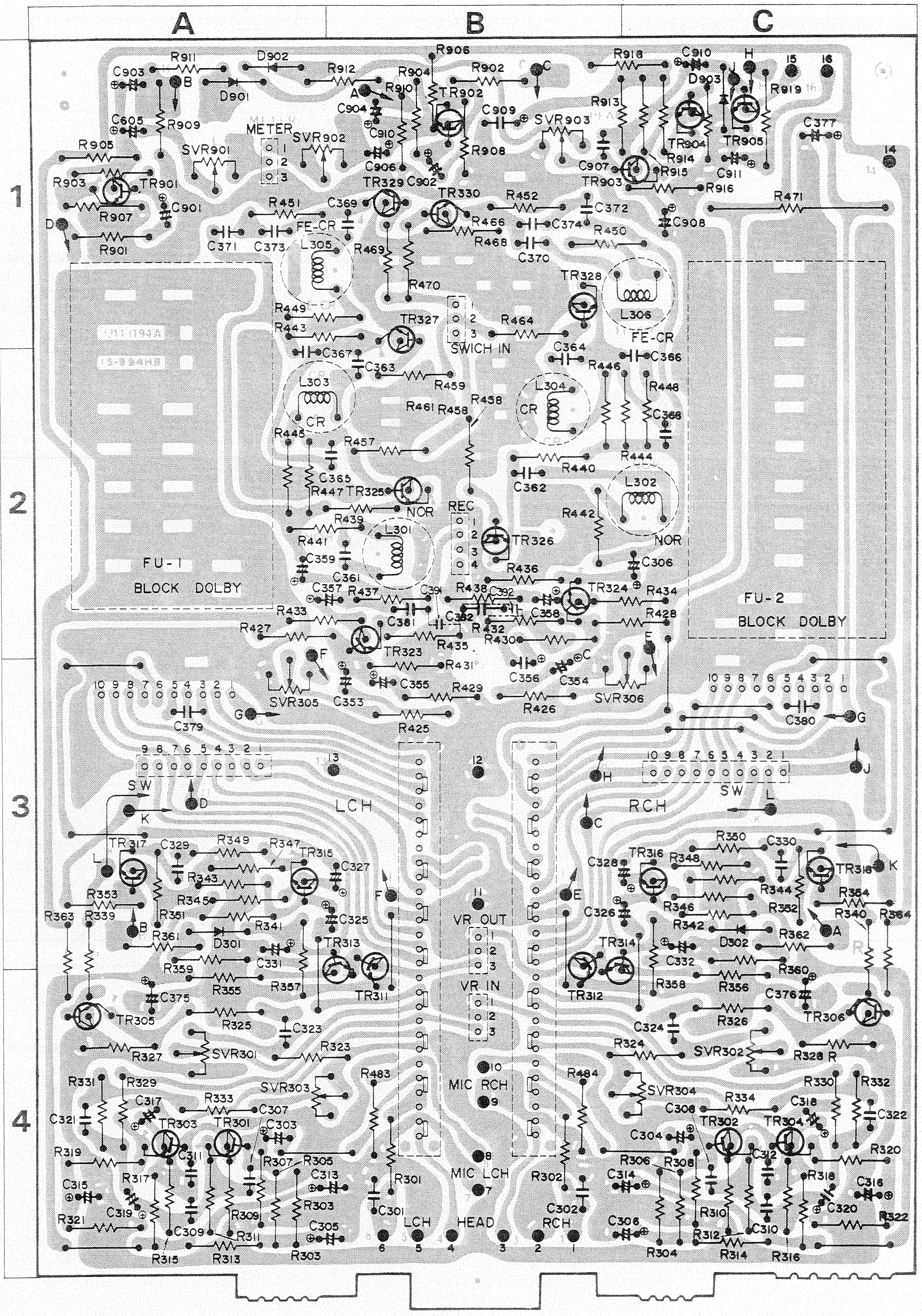
SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUST	ADJUST FOR
Rec Level Adj.	1 kHz 70 mV Audio OSC. LINE IN	R301, R302 VTVM Fig. 6-6, 6-7.	Push Rec button. (Remove B pin on AF Circuit Board)	SVR305 ..... L-CH SVR306 ..... R-CH Fig. 6-6.	Tape Selector CrO_2 .... 600 µV LH .... 500 µV FeCr .... 550 µV
	* A 1 kHz 70 mV Audio OSC. LINE IN	VU Meter VTVM	Push Rec buttons.	MIC/LINE Volume	0 dB ±2 dB .... VU Meter 400 mV ...... VTVM
		SCT-SA (Test Tape)	Push Rec & Play buttons.	(Record the 1 kHz Signal)	
	* B SCT-SA (1kHz Signal)	LINE OUT VTVM VU Meter	Push Play buttons.	If not 400 mV, complete below adjustment.	Confirm 0 dB .... VU Meter 400 mV ...... VTVM
	If not 400 mV (0 dB ±2 dB), adjust SVR305 (L-CH), SVR306 (R-CH) Fig. 6-6 slightly. And repeat this Rec Level Adj. (*A, *B), until the level 400 mV is obtained. * By turning Rec level adjust volume SVR305, SVR306 clockwise, the level is increased.				
Recording Equalizer Adj.	16 kHz 7 mV Audio OSC. LINE IN	R301, R302 Fig. 6-6, 6-7 VTVM	Push Rec (Remove Pin 13 on AF Circuit Board)	Tape Selector CrO_2 ..... L303, 304 FeCr ..... L305, 306 Fig. 6-6.	Max. Voltage
	14 kHz 7 mV Audio OSC. LINE IN	R301, R302 Fig. 6-6, 6-7 VTVM	Push Rec (Remove Pin 13 on AF Circuit Board)	Tape Selector LH ..... L301, 302 Fig. 6-6.	Max. Voltage
Frequency Response Adj.	* A 1 kHz 7 mV 10 kHz 7 mV LINE IN Audio OSC.	LINE OUT VTVM SCT-FCB6 (Test Tape)	Push Rec and Play buttons.	(Record the 1 kHz and 10 kHz Signal)	
	* B SCT-SA (1 kHz and 10 kHz Signal)	LINE OUT VTVM	Push Play button.	If not 0 dB ±2 dB, adjust below adjustment.	Confirm that the difference of output levels between 1 kHz and 10 kHz are within 0 dB ±2 dB against that of 1 kHz.
	If not 0 dB ±2 dB, adjust Bias Adjustment Volume SVR851 (L-CH) SVR852 (R-CH) ..... Fig. 6-1 slightly. And repeat this Frequency Response Adj. (*A, *B) until the level 0 dB is obtained.				

7. PARTS LOCATION & PARTS LIST

Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.

1) AF Circuit Board (Stock No. 7690420)

Conductor Side


A
B
C
1
2
3
4
C903
R911
D902
R912
R906
R904
R902
R918
C910
H
15
16
B
D901
A
R910
TR902
C
D903
R919
C904
C909
SVR903
R913
C605
R909
METER
C910
SVR902
C377
R905
SVR901
R908
TR904
TR905
C906
C907
R914
14
R903
TR901
TR329
C902
TR330
TR903
R915
C911
R916
R907
C901
R451
C369
R452
C372
R471
D
FE-CR
R466
C374
C908
R901
C371
C373
L305
R469
R468
R450
C370
R470
TR328
R449
TR327
SWICH IN
R464
L306
R443
C364
FE-CR
C367
C363
R446
C366
L303
R459
L304
R448
R461
R458
R458
CR
C368
CR
R445
R457
R444
R440
C365
C362
L302
R447
TR325
NOR
REC
R439
R442
R441
L301
TR326
NOR
C359
R436
C306
FU-1
BLOCK DOLBY
C361
C357
R437
C391
R438
C392
TR324
R434
FU-2
BLOCK DOLBY
R433
C381
C352
C358
R428
R427
R432
R430
TR323
R435
F
R431
C356
C354
C353
SVR305
C355
R429
SVR306
C379
G
R426
C380
G
R425
13
12
SW
H
SW
J
D
LCH
RCH
L
K
C
R350
C330
TR317
C329
R349
R347
TR315
C328
TR316
R348
TR318
K
C327
R343
R353
R345
F
11
E
R344
R354
R363
R339
R351
C325
VR OUT
C326
R346
R352
R340
R364
B
R341
R342
A
R361
D301
R362
TR313
TR314
D302
R359
C331
C332
R360
R357
R355
TR311
VR IN
TR312
R358
R356
C375
C376
TR305
R325
C323
R326
TR306
C324
R327
SVR301
R323
R324
SVR302
R328
R483
10
R484
R331
R329
SVR303
MIC RCH
SVR304
R330
R332
C317
R333
C307
R334
C318
C321
9
C308
C322
TR303
TR301
C303
TR302
TR304
C311
C304
R319
8
R306
R308
C312
R320
R307
R305
R317
C313
R301
MIC LCH
R302
C314
R318
C316
C315
7
R303
C320
C319
R309
C302
R321
C309
R311
C305
C301
LCH
HEAD
RCH
C306
R310
R322
R312
C310
6
5
4
3
2
1
R315
R313
R303
R304
R314
R316

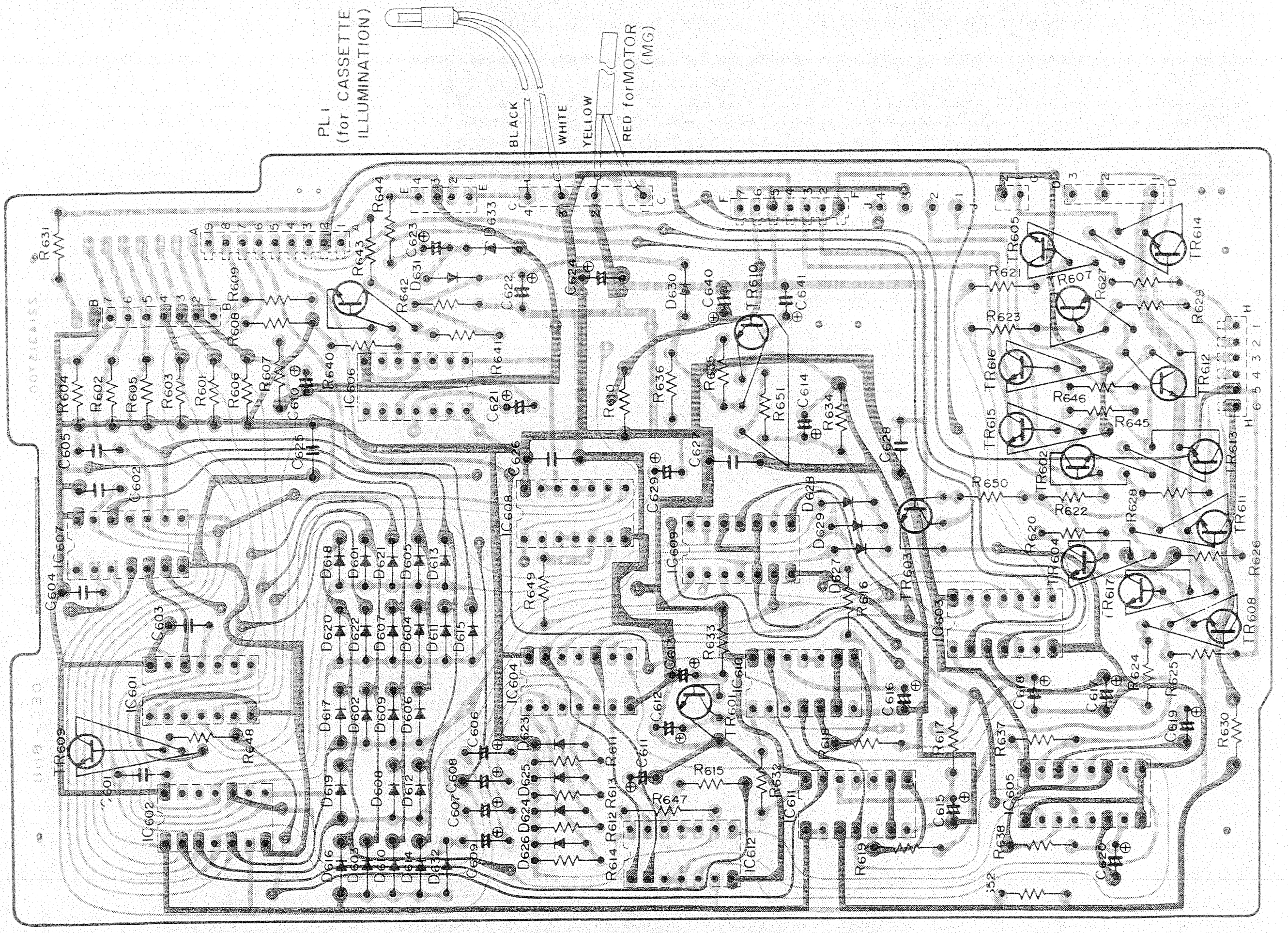
Parts List (AF Circuit Board)

Parts No.	Stock No.	Description		Position
TR301, 302	0300980	2SA721-T	Transistor	4A, 4C
TR303, 304	0306421	2SC1327-T		4A, 4C
TR305, 306	0306500	2SC828-R		4A, 4C
TR311, 312	0306500	2SC828-R		3B
TR313, 314	0306500	2SC828-R		3B
TR315, 316	0306421	2SC1327-T		3A, 3C
TR317, 318	0306500	2SC828-R		3A, 3C
TR323, 324	0306500	2SC828-R		2B
TR325, 326	0306500	2SC828-R		2B
TR327, 328	0306500	2SC828-R		1B
TR329, 330	0306500	2SC828-R		1B
TR901, 902	0306500	2SC828-R		1A, 1B
TR903, 904	0306502	2SC828-Q		1C
TR905	0306502	2SC828-Q		1C

Parts No.	Stock No.	Description		Position
D 301, 302	0311040	1S1555V	Diode	3A, 3B
D 901, 902	0311040	1S1555V		1A
D 903	0311040	1S1555V		1C
C 301, 302	0620561	560pF 50V P.C.		4B
C 307, 308	0620101	100pF 50V P.C.		4A, 4C
C 309, 310	0620101	100pF 50V P.C.		4A, 4C
C 311, 312	0640100	10pF 100V Mi. c.		4A, 4C
C 355, 356	0573338	0.33μF 35V T.C.		3B
C 379, 380	0620101	100pF 50V P.C.		3A, 3C
C 391, 392	0620331	330pF 50V P.C.		2B
R 471	0213221	220Ω 3W Me. R.		1C
R 919	0103102	1kΩ ½W C.R.		

Parts No.	Stock No.	Description	Position
SVR301, 302	1032130	50kΩ P.B Level Volume	4A, 4C
SVR303, 304	1032090	5kΩ Equalizer Adjust Volume	4A, 4C
SVR305, 306	1032130	50kΩ Rec Level Volume	3A, 2C
SVR901, 902	1032090	5kΩ VU Meter Volume	1A
SVR903	1032120	20kΩ Peak Indicator Volume	1B
L 301, 302	4010140	Choke Coil	2B, 2C
L 303, 304	4010140	Choke Coil	2A, 2B
L 305, 306	4010140	Choke Coil	1A, 1C
S 1, 2	1110360	Slide Switch	
	2411320	3P Pin Ass'y	
	2411330	4P Pin Ass'y	
	2411310	9P Pin Ass'y	
	2411350	10P Pin Ass'y	

2) Control Circuit (Stock No. 7690440)


PL1 (for CASSETTE ILLUMINATION)
BLACK
WHITE
YELLOW
RED for MOTOR (MG)
TR601
TR602
TR603
TR604
TR605
TR607
TR608
TR609
TR610
TR611
TR612
TR613
TR614
TR615
TR616
TR617
IC601
IC602
IC603
IC604
IC606
IC607
IC608
IC609
IC610
IC611
IC612
R631
R609
R608
R607
R606
R604
R602
R605
R603
R601
R640
R641
R642
R643
R644
R648
R649
R610
R611
R612
R613
R614
R615
R616
R617
R619
R620
R621
R622
R623
R624
R625
R626
R627
R628
R629
R630
R632
R633
R634
R635
R636
R637
R638
R645
R646
R647
R650
R651
C601
C602
C603
C604
C605
C606
C607
C608
C609
C610
C611
C612
C613
C614
C615
C616
C617
C618
C619
C620
C621
C622
C623
C624
C625
C626
C628
C629
C640
C641
D601
D602
D603
D604
D605
D606
D607
D608
D609
D610
D611
D612
D613
D614
D615
D616
D617
D618
D619
D620
D621
D622
D623
D624
D625
D626
D627
D628
D629
D630
D631
D632
D633
A
B
C
D
E
F
G
H
J

Parts List

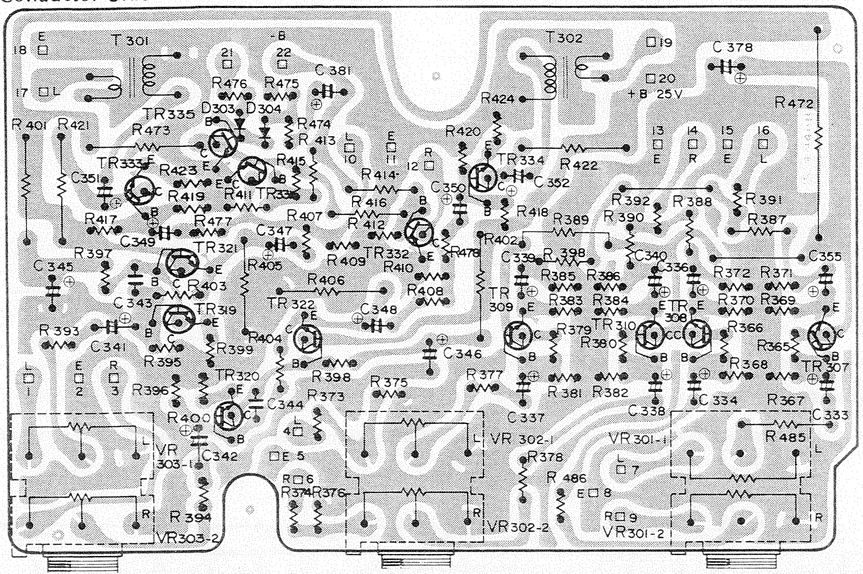
Parts No.	Stock No.	Description	
TR601	0306610	2SC1432	Transistor
TR602	0305040	2SC373	
TR603	0305040	2SC373	
TR604	0305040	2SC373	
TR605	0305040	2SC373	
TR606	0305040	2SC373	
TR607	0305040	2SC373	
TR608	0305040	2SC373	
TR609	0305040	2SC373	
TR610	0305040	2SC373	
TR611	0306601	2SC1383-R	
TR612	0306601	2SC1383-R	
TR613	0306601	2SC1383-R	
TR614	0306590	2SC1173-O	
TR615	0300971	2SA683-R	
TR616	0300971	2SA683-R	
TR617	0306590	2SC1173-O	
IC 601	0360630	F7410-PCQM	IC
IC 602	0360620	F7404-PCQM	
IC 603	0360620	F7404-PCQM	
IC 604	0360640	F7420-PCQM	

Parts No.	Stock No.	Description	
IC 605	0360660	F74123-PCQM	IC
IC 606	0360650	F74121-PCQM	
IC 607	0360610	F7400-PCQM	
IC 608	0360610	F7400-PCQM	
IC 609	0360610	F7400-PCQM	
IC 610	0360610	F7400-PCQM	
IC 611	0360610	F7400-PCQM	
IC 612	0360610	F7400-PCQM	
D601～627	0311040	1S1555V	Diode
D 628	0340180	KB262 Baristor	
D629～632	0311040	1S1555V	
D 633	0311610	YZ033 Zener	
D 634	0311040	1S1555V	
D635	0311480	20A90 Diode	
C 601	0659020	0.1 μF 12V C.C.	
C 602	0659020	0.1 μF 12V C.C.	
C 603	0659020	0.1 μF 12V C.C.	
C 604	0659020	0.1 μF 12V C.C.	
C 605	0659020	0.1 μF 12V C.C.	
C 610	0502470	47 μF 16V E.C.	

Parts No.	Stock No.	Description
C 611	0501101	100 μF 10V E.C.
C 612	0501101	100 μF 10V E.C.
C 613	0502470	47 μF 16V E.C.
C 614	0502470	47 μF 16V E.C.
C 615	0501101	100 μF 10V E.C.
C 616	0501101	100 μF 10V E.C.
C 617	0501221	220 μF 10V E.C.
C 618	0501221	220 μF 10V E.C.
C 624	0501102	1000 μF 10V E.C.
C 625	0657473	0.047 μF
C 626	0657473	0.047 μF 50V C.C.
C 627	0657473	0.047 μF 50V C.C.
C 628	0657473	0.047 μF 50V C.C.
	2411290	2P Pin Ass'y
	2411260	3P Pin Ass'y
	2411270	4P Pin Ass'y
	2411330	4P Pin Ass'y
	2411300	6P Pin Ass'y
	2411340	7P Pin Ass'y
	2411310	9P Pin Ass'y

3) Volume Circuit Board (Stock No. 7690410)

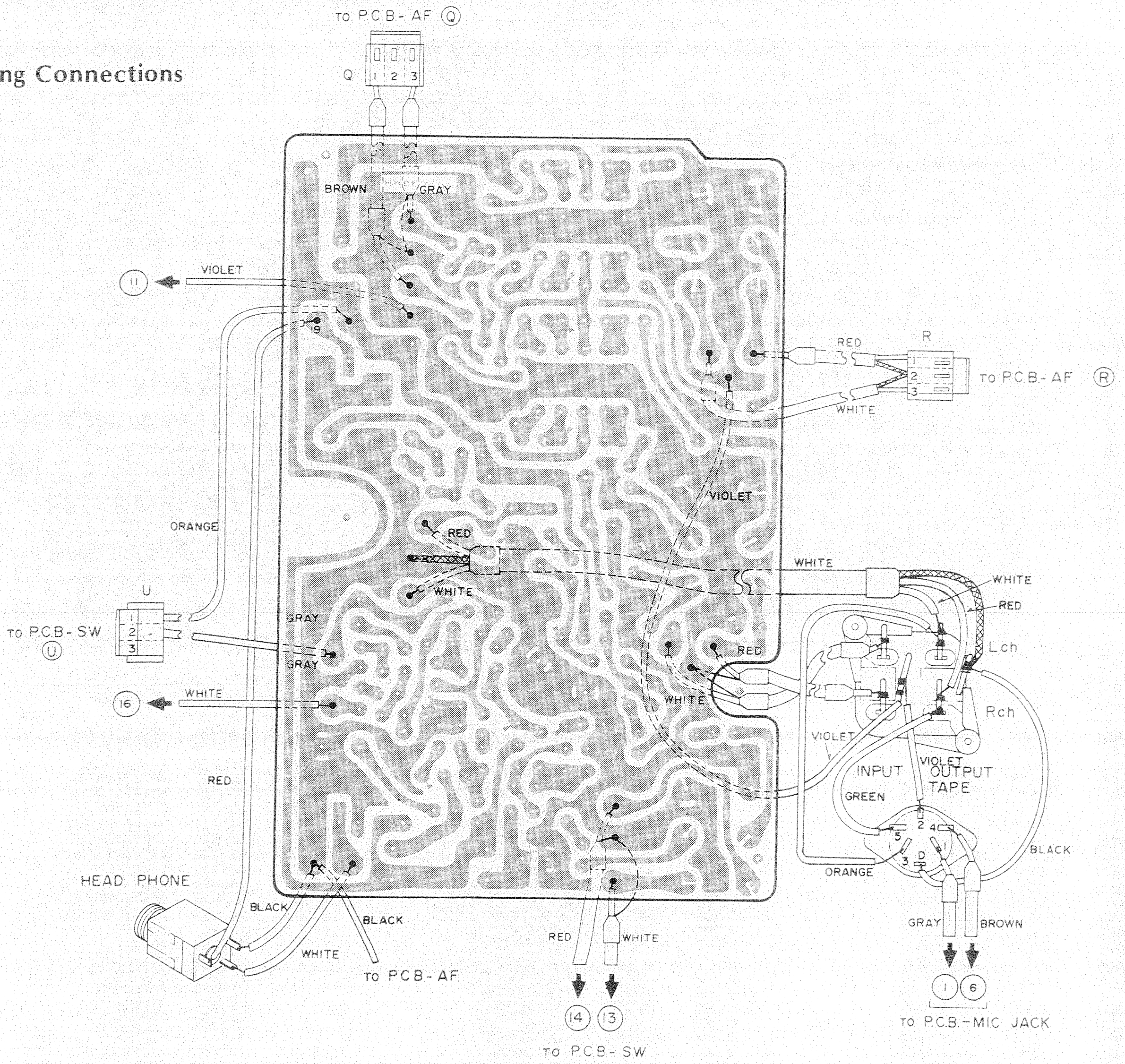
Conductor Side


T 301
T 302
18 E
17 L
21
22
-B
C 381
19
20
+B 25V
C 378
R476
R475
R424
R472
TR335
D303
D304
R474
R 413
R401
R421
R473
R420
13 E
14 R
15 E
16 L
10
11
12
TR333
R423
R415
TR334
R422
C351
R419
R411
TR331
R414
C350
C 352
R417
R477
R407
R416
R412
R418
R389
R390
R392
R388
R391
R387
C349
C347
TR321
R409
TR332
R478
R402
C339
R 398
C340
C355
C 345
R397
R405
R410
R385
R386
C336
R372
R371
R403
R406
R408
TR 309
R383
R384
TR 308
R370
R369
C 343
TR319
TR 322
C348
R379
TR310
R366
R 393
C341
R404
R399
C346
R380
R365
TR307
R 395
R398
R375
R377
R368
1 L
2 E
3 R
R396
TR320
R373
C344
R381
R382
C 334
R367
R400
C 337
C338
C333
4 L
VR 302-1
VR 301-1
R485
VR 303-1
C342
E 5
R378
R 486
7
6 R
R374
R376
E 8
R 394
9 R
VR303-2
VR302-2
VR301-2

Parts List

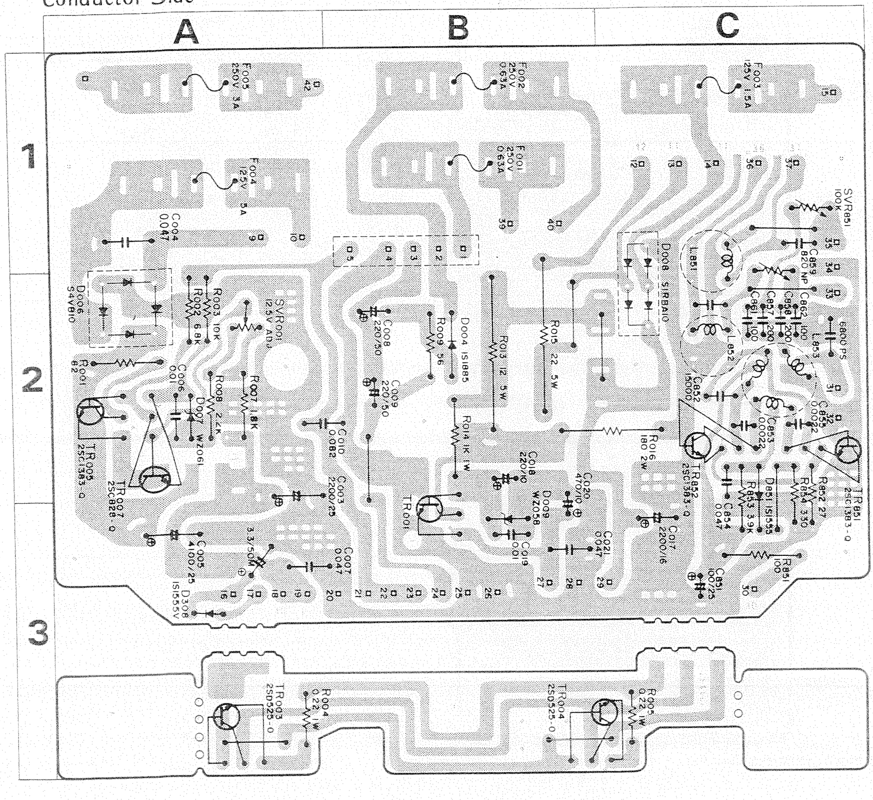
Parts No.	Stock No.	Description	
TR 307, 308	0306421	2SC1327-T	Transistor
TR309, 310	0306421	2SC1327-T	
TR 319, 320	0306500	2SC828-R	
TR 321, 322	0306500	2SC828-R	
TR 331, 332	0300093	2SA564-S	
TR 333, 334	0306500	2SC828-R	
TR 335	0306500	2SC828-R	
D 303, 304	0311040	D-1S1555V Diode	
C 343, 344	0640330	33pF 100V Mi. c.	
R 405, 406	0103222	2.2kΩ ½W C.R.	
R 472	0213561	560Ω 3W C.R.	
VR301	1020310	20kΩ x 2, mic input volume	
VR302	1020300	50kΩ x 2, line input volume	
VR303	1020310	20kΩ x 2, output volume	
T 301, 302	4100150	Output Transformer	

Wiring Connections


To P.C.B- AF Ⓠ
Q
1
2
3
BROWN
GRAY
VIOLET
⑪
19
RED
R
1
2
3
To P.C.B- AF Ⓡ
WHITE
VIOLET
ORANGE
RED
WHITE
WHITE
WHITE
RED
U
1
2
3
To P.C.B- SW Ⓤ
GRAY
GRAY
⑯
WHITE
RED
WHITE
Lch
Rch
VIOLET
INPUT
VIOLET
OUTPUT
TAPE
GREEN
RED
2
4
5
3
1
D
BLACK
ORANGE
HEAD PHONE
BLACK
BLACK
WHITE
To P.C.B - AF
RED
WHITE
GRAY
BROWN
⑭
⑬
To P.C.B - SW
①
⑥
To P.C.B.-MIC JACK

4) Power Supply Circuit Board (Main) (Stock No. 7502610)

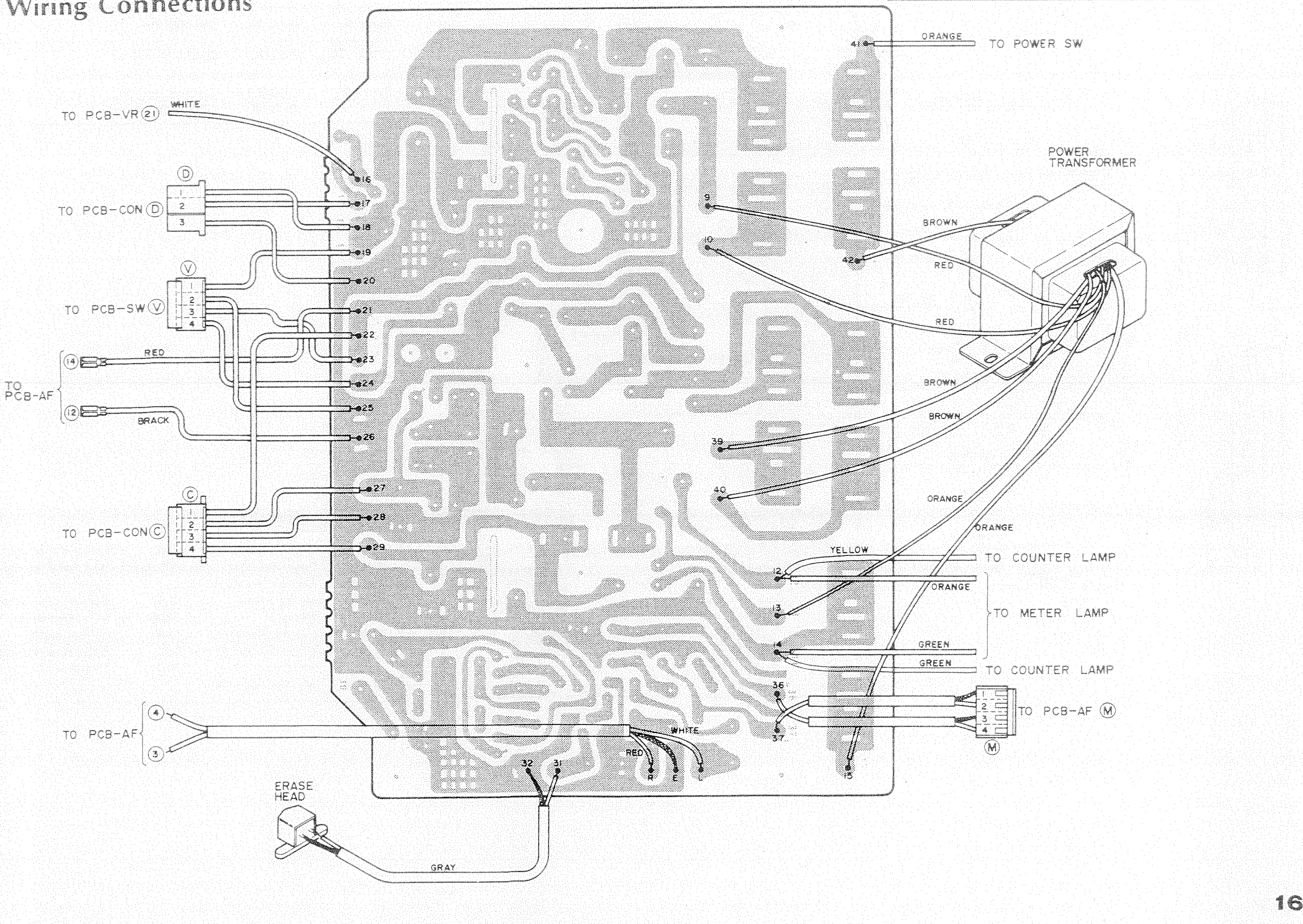
Conductor Side


A
B
C
1
2
3
F005 250V 3A
F002 250V 0.63A
F003 125V 1.5A
F004 125V 5A
F001 250V 0.63A
C004 0.047
D006 S4VB10
R003 10k
R002 6.8k
SVR001 125V ADJ
R001 82
C006 0.01
R008 2.2k
R007 1.8k
D007 WZ061
TR005 2SC1383-Q
TR007 2SC828-Q
C008 220/50
C009 220/50
D004 1S1885
R009 56
R013 12 5W
R015 22 5W
R014 1k 1W
R016 180 2W
C010 0.082
C003 2200/25
C018 22000
C020 4700
D009 WZ058
TR001
C019 0.01
C021 0.047
C005 4700/25
D308 1S1555V
C007 0.047
D008 S1RBA10
L851
L852
L853
SVR851 100k
C859 820
C860
C852 15000
C856 6800 PS
TR852 2SC1383-Q
C017 2200/16
C854 0.047
R853 3.9k
D851 1S1555
R854 330
R852 2.7
TR851 2SC1383-Q
R851 100
C851 0.0022
TR003 2SD525-O
R004 0.22 1W
TR004 2SD525-O
R005 0.22 1W

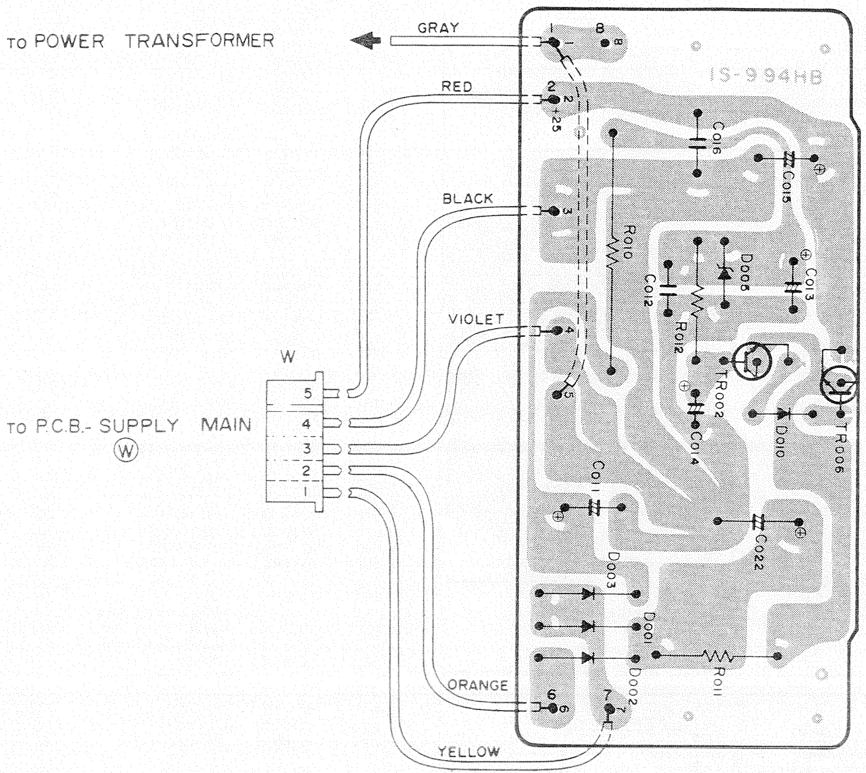
Parts List

Parts No.	Stock No.	Description	Position
TR001	0308640	2SD234-O	3B
TR003	0308650	2SD525-O	3A
TR004	0308650	2SD525-O	3B
TR005	0306601	2SC1383-R Transistor	2A
TR007	0306502	2SC828-Q	2A
TR851	0306600	2SC1383-Q	2C
TR852	0306600	2SC1383-Q	2C
D 004	0311630	D-1S1885	2B
D 006	0311640	D-S4VB10	2A
D 007	0316670	D-WZ061	2A
D 008	0311650	D-S1RBA10 Diode	2C
D 009	0316660	D-WZ058	3B
D 308	0311040	D-1S1555V	3A
D 851	0311040	D-1S1555V	2, 3C
C 003	0549902	2200 µF 25V E.C.	2, 3A
C 005	0549901	4700 µF 25V E.C.	3A
C 852	0609004	15000 pF 100V M.C.	2C
C 856	0622682	6800 pF 125V P.C.	
C 859	0620821	820 pF 50V P.C.	1C
C 860	0620821	820 pF 50V P.C.	
R 001	0191829	8.2Ω ¼W F.R.	2A
R 004	0159110	0.22Ω 1W Ce.R.	3A
R 005	0159110	0.22Ω 1W Ce.R.	3C
R 009	0191560	56Ω ¼W F.R.	
R 010	0213122	1.2 kΩ 3W M.R.	
R 011	0211339	3.3Ω 1W M.R.	
R 012	0103123	12kΩ 2W C.R.	
R 013	0155120	12Ω 5W Ce.R.	2B
R 014	0211102	1kΩ 1W M.R.	2B
R 015	0155220	22Ω 5W Ce.R.	2B
R 016	0211181	180Ω 2W M.R.	3C
R 851	0211101	100Ω 1W M.R.	3C
SVR001	1039110	220Ω Voltage Adjust Volume	2A
SVR851	1039100	100kΩ Bias Adjust Volume	1C
SVR852	1039100	100kΩ Bias Adjust Volume	
L 851	4010130	Choke Coil	1, 2C
L 852	4010130	Choke Coil	1C
L 853	4220690	OSC Coil	1C
F 001	0431370	0.63A	1B
F 002	0431370	0.63A	1B
F 003	0432230	1.5A Power Fuse	1C
F 004	0432290	5A	1A
F 005	0432260	3A	1A
	2310220	Fuse Holder	
	2411280	5P Pin Ass'y	

Wiring Connections


TO PCB-VR ㉑
WHITE
Ⓓ
TO PCB-CON Ⓓ
Ⓥ
TO PCB-SW Ⓥ
⑭
RED
TO PCB-AF
⑫
BRACK
Ⓒ
TO PCB-CON Ⓒ
TO PCB-AF
④
③
WHITE
RED
ERASE HEAD
GRAY
32
31
16
17
18
19
20
21
22
23
24
25
26
27
28
29
41
ORANGE
TO POWER SW
POWER TRANSFORMER
9
10
42
BROWN
RED
RED
BROWN
BROWN
39
40
ORANGE
ORANGE
YELLOW
TO COUNTER LAMP
12
ORANGE
TO METER LAMP
13
14
GREEN
GREEN
TO COUNTER LAMP
36
37
15
TO PCB-AF Ⓜ
Ⓜ

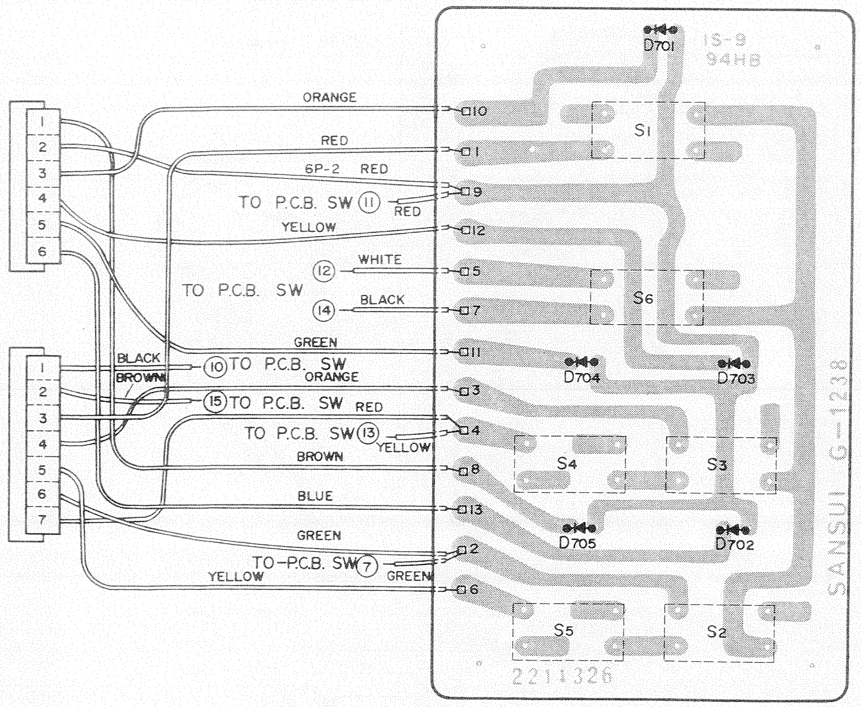
5) Power Supply Circuit Board (Sub) (Stock No. 7502600)


TO POWER TRANSFORMER
GRAY
RED
BLACK
VIOLET
ORANGE
YELLOW
W
TO P.C.B.- SUPPLY MAIN
Ⓦ
5
4
3
2
1
1
2
3
4
5
6
7
8
1S-994HB
C016
C015
C013
C012
R010
R012
D005
TR002
TR006
C014
D010
C011
C022
D003
D001
D002
R011

Parts List

Parts No.	Stock No.	Description	
TR002	0306502	2SC828-Q	Transistor
TR006	0308640	2SD234-O	
D 001	0311630	1S1885	Diode
D 002	0311630	1S1885	
D 003	0311630	1S1885	
D 005	0316680	XZ265	
D 010	0311040	1S1555V	
R 010	0213122	1.2kΩ 3W M.R.	
R 011	0211339	3.3Ω 1W M.R.	
R 012	0103123	12kΩ ½W C.R.	
	5106553	Special Screw 3 x 6, for TR006	

6) G-1238 Control Switch Circuit Board (Stock No. 7690480)


D701
1S-9
94HB
ORANGE
RED
6P-2 RED
TO P.C.B. SW ⑪
RED
YELLOW
WHITE
⑫
TO P.C.B. SW
⑭
BLACK
GREEN
BLACK
BROWN
⑩ TO P.C.B. SW
ORANGE
⑮ TO P.C.B. SW
RED
TO P.C.B. SW ⑬
YELLOW
BROWN
BLUE
GREEN
TO-P.C.B. SW ⑦
YELLOW
GREEN
1
2
3
4
5
6
1
2
3
4
5
6
7
10
1
9
12
5
7
11
3
4
8
13
2
6
S1
S6
D704
D703
S4
S3
D705
D702
S5
S2
SANSUI G-1238
2211326

Parts List

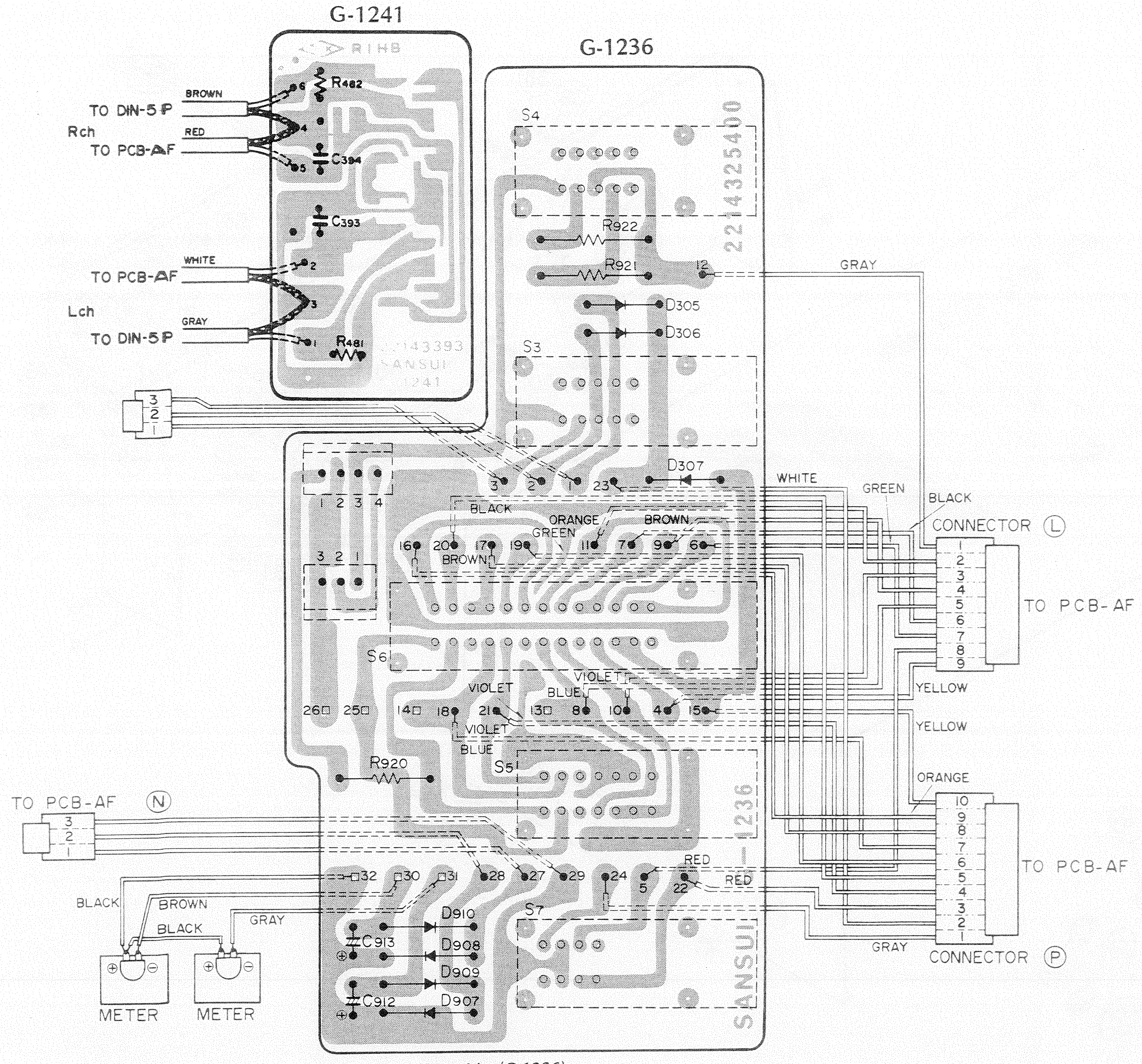
Parts No.	Stock No.	Description
D701 ~705	0319160	S8169 Diode
S1 ~6	1190580	Control Switch
	5260440	Circuit Board Holder

Abbreviations

C.R. : Carbon Resistor
S.R. : Solid Resistor
Ce.R. : Cement Resistor
M.R. : Metal Film Resistor
F.R. : Fusing Resistor
N.I.R. : Non-Inflammable Resistor
M.C. : Mylar Capacitor
E.C. : Electrolytic Capacitor
BP.E.C.: Bi-Polar Electrolytic Capacitor
C.C. : Ceramic Capacitor
MI.C. : Mica Capacitor
O.C. : Oil Capacitor
P.C. : Polystyrene Capacitor
T.C. : Tantalum Capacitor

7) G-1241 Mic Jack Circuit Board (Stock No. 7690600)

8) G-1236 Switch Circuit Board Ass'y (Stock No. 7690460)


G-1241
G-1236
RIHB
BROWN
TO DIN-5P
Rch
RED
TO PCB-AF
R482
C394
C393
WHITE
TO PCB-AF
Lch
GRAY
TO DIN-5P
R481
22143393
SANSUI
1241
S4
22143254
R922
R921
D305
D306
S3
GRAY
D307
WHITE
GREEN
BLACK
CONNECTOR Ⓛ
TO PCB-AF
BLACK
ORANGE
BROWN
GREEN
S6
VIOLET
BLUE
YELLOW
YELLOW
ORANGE
R920
S5
TO PCB-AF Ⓝ
TO PCB-AF
RED
RED
BLACK
BROWN
BLACK
GRAY
C913
D910
D908
D909
C912
D907
S7
GRAY
CONNECTOR Ⓟ
METER
METER
G-1236
SANSUI

Parts List (G-1241)

Parts No.	Stock No.	Description
J 1	2430440	MIC Jack
J 2	2430440	MIC Jack
	5241370	Jack Bracket

Parts List (G-1236)

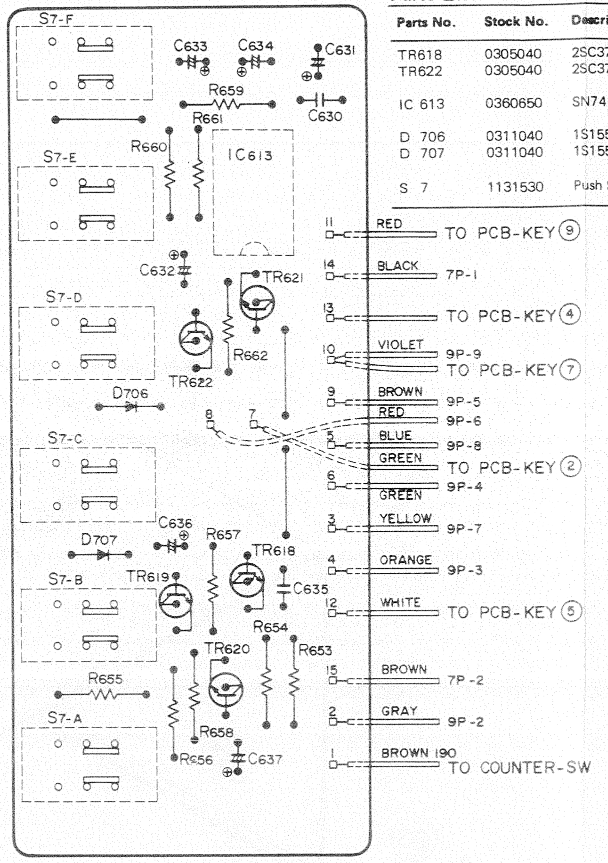
Parts No.	Stock No.	Description
D 305	0311040	1S1555V Diode
D 306	0311040	1S1555V Diode
D 307	0311040	1S1555V Diode
D 907	0311490	2OA90 Diode
D 908	0311490	2OA90 Diode
D 909	0311490	2OA90 Diode
D 910	0311490	2OA90 Diode
R 921	0171181	180Ω 1W Me.R.
R 922	0211271	270Ω 1W Me.R.

Parts No.	Stock No.	Description
S 3,4	1171940	Equalizer Bias Switch
S 5	1171950	Dolby NR Switch
S 6	1171960	Dolby FM Switch
S 7	1171930	Limiter Switch
	2411320	3 Pin Ass'y
	2411330	4 Pin Ass'y

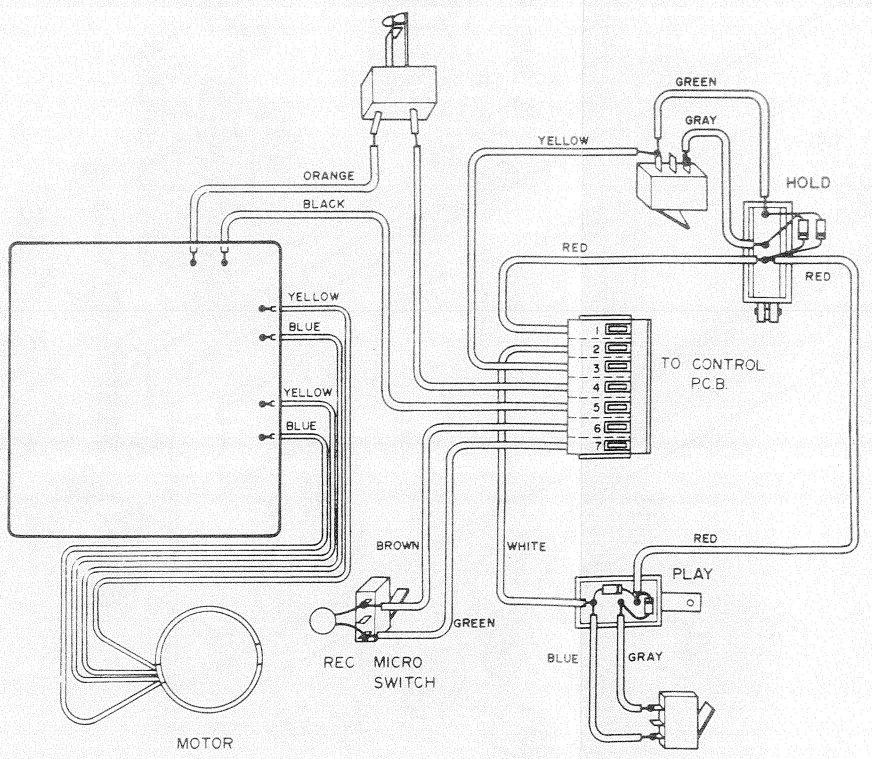
9) G-1235 Auto Switch Circuit Board (Stock No. 7690450)

Parts List

Parts No.	Stock No.	Description
TR618	0305040	2SC373 Transistor
TR622	0305040	2SC373 Transistor
IC 613	0360650	SN74121 IC
D 706	0311040	1S1555V Diode
D 707	0311040	1S1555V Diode
S 7	1131530	Push Switch

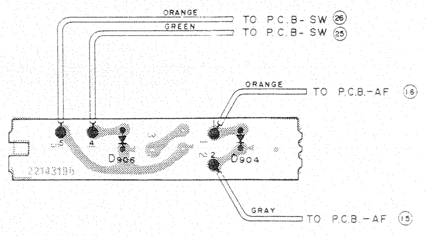

S7-F
C633
C634
C631
R659
R661
C630
S7-E
R660
IC613
C632
TR621
S7-D
R662
TR622
D706
S7-C
C636
D707
R657
TR618
S7-B
TR619
C635
R654
TR620
R653
R655
S7-A
R658
R656
C637
RED
TO PCB-KEY ⑨
BLACK
7P-1
TO PCB-KEY ④
VIOLET
9P-9
TO PCB-KEY ⑦
BROWN
9P-5
RED
9P-6
BLUE
9P-8
GREEN
TO PCB-KEY ②
9P-4
GREEN
YELLOW
9P-7
ORANGE
9P-3
WHITE
TO PCB-KEY ⑤
BROWN
7P-2
GRAY
9P-2
BROWN 190
TO COUNTER-SW

10) Wiring Connecting of Motor Control Circuit


GREEN
GRAY
YELLOW
ORANGE
BLACK
HOLD
RED
RED
YELLOW
BLUE
YELLOW
BLUE
TO CONTROL P.C.B.
BROWN
WHITE
RED
PLAY
GREEN
BLUE
GRAY
REC MICRO SWITCH
MOTOR

11) LED Circuit Board

(Stock No. 7690430)

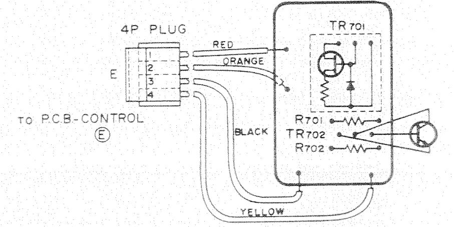

ORANGE
GREEN
TO P.C.B.-SW
TO P.C.B.-SW
ORANGE
TO P.C.B.-AF ⑭
D906
D904
22143186
GRAY
TO P.C.B.-AF ⑮

Parts List

Parts No.	Stock No.	Description
D 904	0319160	S8169 Diode
D 905	0319150	TLG-102 Diode
	5260450	LED Holder

12) Senser Circuit Board

(Stock No. 7690490)


4P PLUG
TR701
RED
ORANGE
E
TO P.C.B.-CONTROL Ⓔ
BLACK
R701
TR702
R702
YELLOW

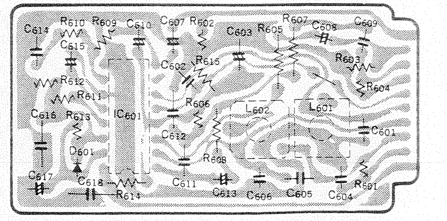
Parts List

Parts No.	Stock No.	Description
TR701	0370290	2SK53-FJ2 FET
R 701	0240473	47kΩ ¼W C.R.
TR701	0370291	2SK53-FJ3 FET
R 701	0240273	20kΩ ¼W C.R.
TR701	0370292	2SK53-FJ4 FET
R 701	0240183	18kΩ ¼W C.R.
TR702	0305040	2SC373
R 702	0240322	3.3kΩ C.R.

13) Dolby Block Circuit Board

(Stock No. 7660140)

Conductor Side

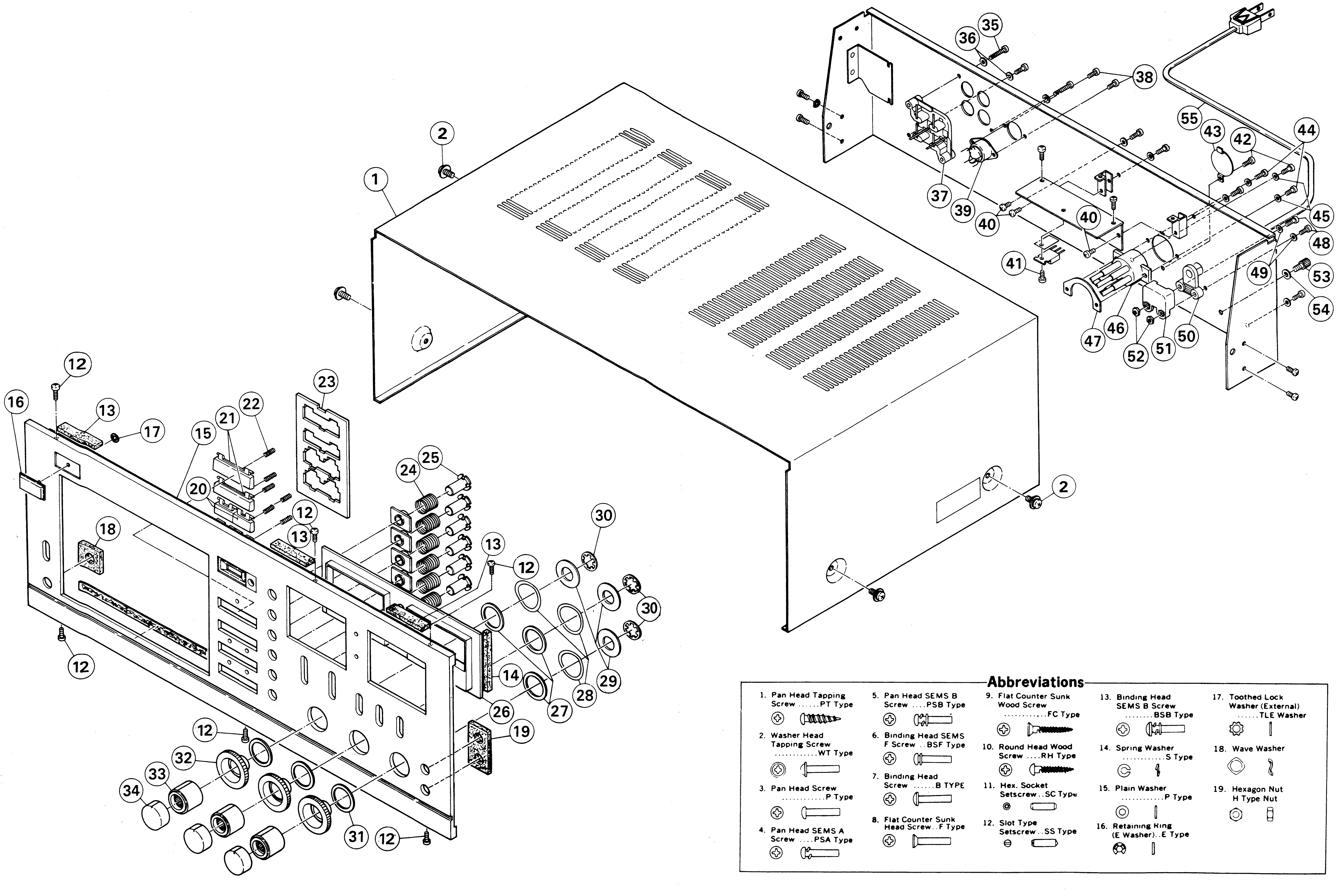

C614
R610
R609
C615
C610
C607
R602
C603
R605
R607
C608
C609
R603
R606
R612
R611
R604
C616
R613
IC601
C612
L602
L601
C601
D601
R608
C617
C618
R614
C611
C613
C606
C605
C604
R601

Parts List

Parts No.	Stock No.	Description
IC 601	0360340	NE545B IC
D 601	0311480	2OA90 Diode
C 603	0501221	220µF 10V E.C.
C 605	0620332	3300pF 50V P.C.
C 607	0502100	10µF 16V E.C.
C 608	0502100	10µF 16V E.C.
C 609	0621562	5600pF 50V P.C.
C 610	0502100	10µF 16V E.C.
C 611	0621472	4700pF 50V P.C.
C 613	0502100	10µF 16V E.C.
C 615	0502100	10µF 16V E.C.
L 601	4290340	Choke Coil
L 602	4290330	Choke Coil

8. EXPLODED VIEW AND PARTS LIST

1) Chassis Section (1)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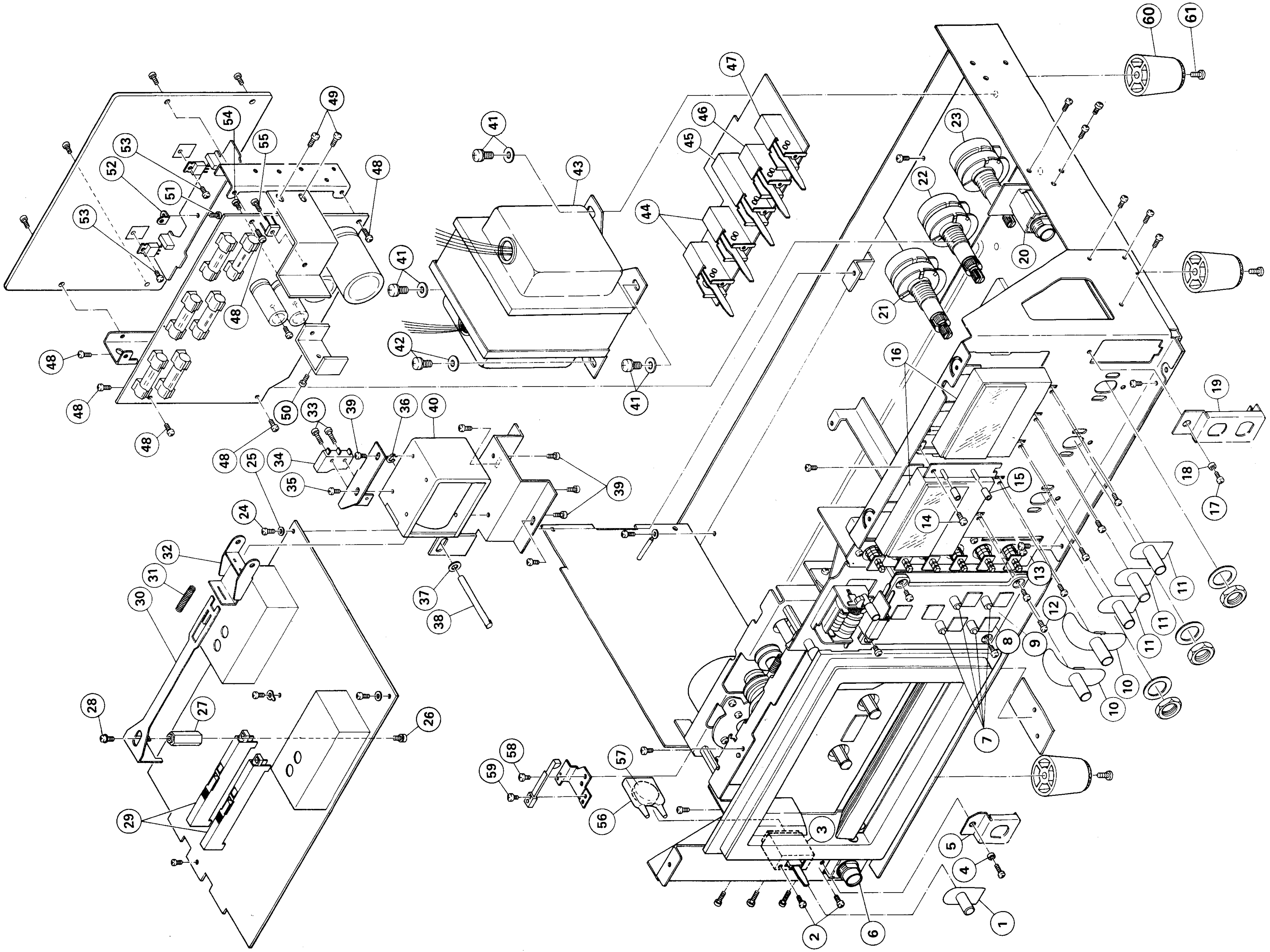
Abbreviations

1. Pan Head Tapping Screw ......PT Type
2. Washer Head Tapping Screw ....WT Type
3. Pan Head Screw ....P Type
4. Pan Head SEMS A Screw ....PSA Type
5. Pan Head SEMS B Screw ....PSB Type
6. Binding Head SEMS F Screw ..BSF Type
7. Binding Head Screw ......B TYPE
8. Flat Counter Sunk Head Screw..F Type
9. Flat Counter Sunk Wood Screw ....FC Type
10. Round Head Wood Screw ....RH Type
11. Hex. Socket Setscrew..SC Type
12. Slot Type Setscrew..SS Type
13. Binding Head SEMS B Screw ....BSB Type
14. Spring Washer ....S Type
15. Plain Washer ....P Type
16. Retaining Ring (E Washer)..E Type
17. Toothed Lock Washer (External) ......TLE Washer
18. Wave Washer
19. Hexagon Nut H Type Nut

2) Chassis Section (2)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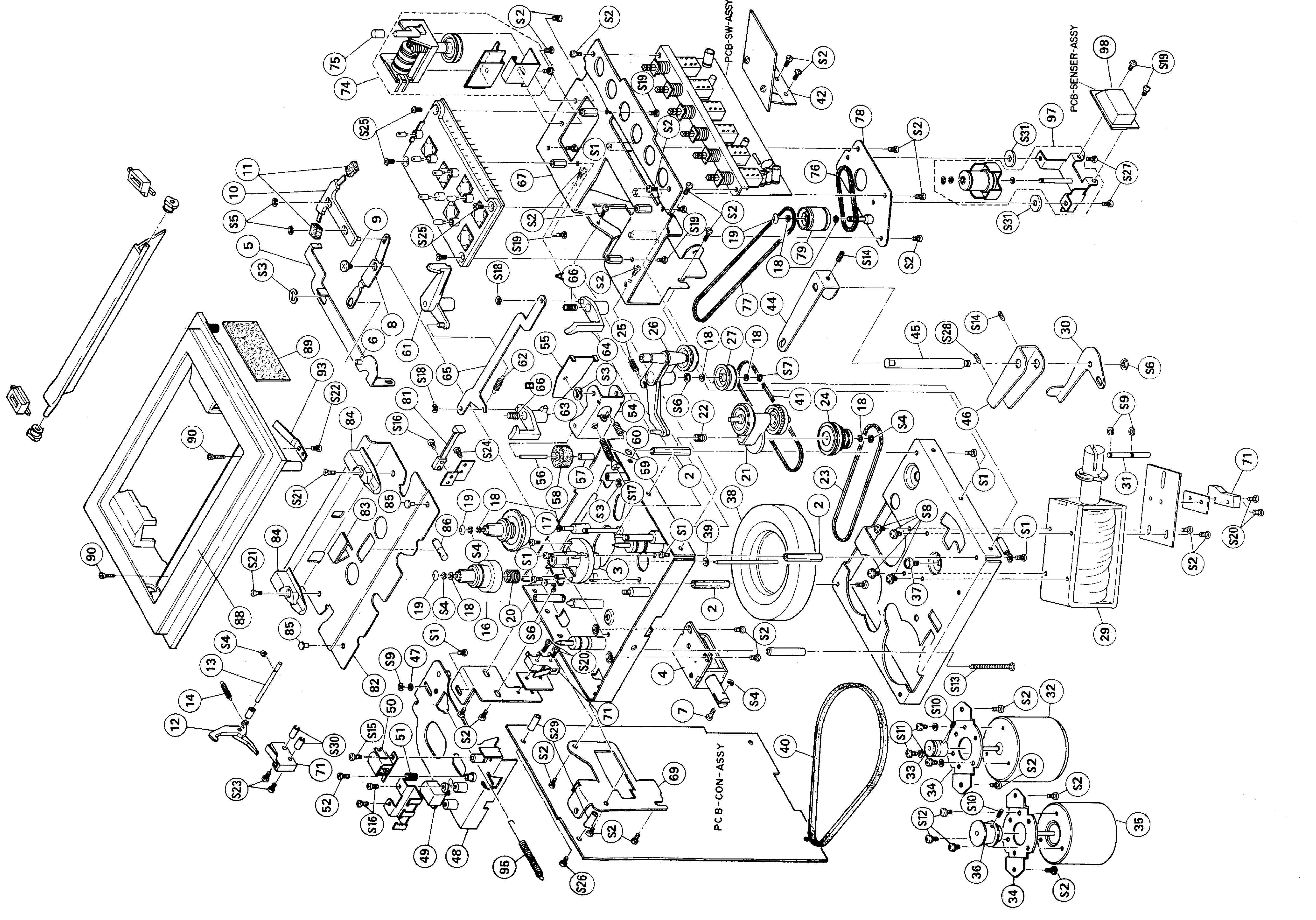
6
1

3) Mechanism Ass'y


PCB-SW-ASSY
PCB-SENSER-ASSY
PCB-CON-ASSY
A
B

1) Chassis Section (1)

Parts No.	Stock No.	Description
1	5000060	Cabinet Ass'y
2	5109955	Special Screw, cabinet ass'y
12	5100943	B Type Screw, 3 x 6, front panel
	7000250	Front Panel Ass'y
13	5040550	Cushion, front panel
14	5040560	Cushion, front panel
15	5301840	Front Panel
16	5336600	Sansui Badge
17	5152211	CS Ring 3ϕ, Sansui badge
18	5500620	Cushion, headphone jack
19	5500630	Cushion, mic jack
20	7100040	Control Button Ass'y, with spring
21	7100050	Control Button Ass'y, with spring
22	6901630	Spring, control button ass'y
23	5260470	Button Guide
24	6901550	Spring, push button
25	5320560	Push Button
26	5060390	Meter Cover
27	5180590	Special Washer, level volume
28	5180570	Wave Washer, level volume
29	5180550	Special Washer, level volume
30	5152212	CS Ring 14ϕ
31	5180590	Special Washer
32	5310440	Knob Maker
33	5310450	Level Volume Knob, R-CH
34	5310460	Level Volume Knob, L-CH
35	5103743	PT Type Screw, 3 x 10 (black)
36	5180500	P Type Washer, 3ϕ (black)
37	2200550	Input & Output Terminal
38	5103122	P Type Screw, 2.6 x 5 (black)
39	2430410	DIN Jack
40	5101043	B Type Screw, 3 x 10
41	5106533	Plastic Screw, 3 x 6
42	5109911	Tap Tight Screw, 3 x 6 (black)
43	5038160	Voltage Selector Cover
44	5101144	P Type Screw, 3 x 8 (black)
45	5180550	P Type Washer, 3ϕ (black)
46	1190590	Voltage Selector
47	5170140	Special Nut, voltage selector
48	5101149	P Type Screw, 3 x 16 (black)
49	5101149	P Type Screw, 3 x 16 (black)
50	5260480	Cord Clump, power cord
51	5260490	Cord Clump, power cord
52	5110241	Nut, 3ϕ (cord lamp)
53	5160360	Ground Terminal
54	5120061	P Type Washer, 4ϕ
55	3800010	Power Cord

2) Chassis Section (2)

Parts No.	Stock No.	Description
1	5320590	Lever Switch Knob, for 2 contact
2	5101041	B Type Screw, 3 x 4
3	1171630	Power Switch
4	5230800	Spacer, headphone jack
5	5241360	Bracket, headphone jack
6	2430450	Headphone Jack
7	0319160	LED (S8169), control indicator
8	1190580	Key Switch, control circuit
9	5260440	P.C.B. Holder
10	5320580	Lever Switch Knob, for 3 contact
11	5320590	Lever Switch Knob, for 2 contact
12	5101041	B Type Screw, 3 x 4
13	1190530	Push Switch
14	5101023	B Type Screw, 2.6 x 6
15	5260450	LED Holder
16	4301210	VU Meter
17	5109911	Tap Tight Screw, 3 x 6
18	5230800	Spacer, mic jack
19	5241370	Bracket, mic jack
20	2430440	Mic Jack
21	1020310	Mic Level Volume, 20 kΩ x 2
22	1020300	Line Level Volume, 50 kΩ x 2
23	1020310	Output Level Volume, 20 kΩ x 2
26	5101043	B Type Screw, 3 x 6
27	5210050	Stud, rec lever
28	5107853	PSA Type Screw, 3 x 6
29	1110360	REC/PLAY Switch
30	6500970	REC Lever
31	6901640	Spring, rec lever
32	5250150	Spring Bracket
33	5101005	B Type Screw, 2 x 8
34	1160260	Micro Switch, rec/play
35	5107853	PSA Type Screw, 3 x 6
36	5151002	E Ring, 2ϕ
37	5120141	Washer, 3ϕ
38	5180580	REC PIN
39	5107853	PSP Type Screw, 3 x 6
40	4340200	
	4340220	Rec/Play Solenoid
41	5107762	PSA Type Screw, 4 x 8
42	5107763	PSA Type Screw, 4 x 10
43	4002730	Power Transformer
44	1171940	Lever Switch, tape selector
45	1171960	Lever Switch, dolby FM
46	1171950	Lever Switch, dolby NR
47	1171930	Lever Switch, limiter
48	5109911	Tap Tight Screw, 3 x 6
49	5103541	PT Type Screw, 3 x 6
50	5106553	Plastic Screw, 3 x 6
51	5101043	B Type Screw, 3 x 6
52	5210060	PCB Stay
53	5106553	Plastic Screw, 3 x 6
54	5101022	P Type Screw, 2.6 x 5
55	5107847	PSA Type Screw, 3 x 14
56	5616220	Condenser Cover
57	0659021	0.0047 μF 125V C.C.
58	5101004	B Type Screw, 2 x 6
59	1190570	Micro Switch
60	5510190	Foot
61	5109942	PT Type Screw, 3 x 8

3) Mechanism Ass'y

Parts No.	Stock No.	Description
2	5230790	Stud
3	7040210	Flywheel Bearing
4	4340190 4340210	Hold Solenoid
D803,804	0311180	1S1588 Diode
5	6500850	Joint
6	6200320	Joint Shaft
7	5160370	Solenoid Pin
8	6500860	Brake Arm
9	5160390	Special Screw, 2.6 x 5.8
	7070060	Brake Lever Ass'y
10	6400160	Brake Lever
11	6400170	Brake Shoe
12	6500870	Protect Lever
13	6200330	Shaft
14	6901510	Pull Spring
16	7150090	Supply Ass'y
17	7150100	Take-up Ass'y
18	5180510	Special Washer
19	5370120	Cap
20	6901520	Push Spring
21	7090020	REW Arm Ass'y
22	6901530	Push Spring
23	6030170	FF, REW, Belt
24	7070070	Pulley Ass'y
25	6901550	Pull Spring, Clutch
26	7060260	Clutch Ass'y
27	6130110	Tension Roller
29	4340230	Solenoid, play
D801,802	0311180	1S1588 Diode
30	6500880	Play Arm
31	5180110	Pin, Solenoid
32	4320560	Motor (FF, Rew. Motor)
33	6140140	Motor Pulley
34	5210030	Motor Support
	9916077	Play Motor Ass'y, FG motor ass'y
42	7502790	FG Motor Circuit Board Ass'y
35	4320550	Play Motor, FG Motor
36	6140150	Motor Pulley
37	5260420	Flywheel Thrust Bearing
38	6100060	Flywheel
39	5180520	Special Washer
40	6030180	Capstan Belt
41	6030190	Take-up Belt
44	6500890	Play Arm
45	6200340	Play Shaft
46	6500900	Play Arm
47	5180540	Special Washer
48	7020040	Slide Base
49	4526030	Head Erase
50	4536040	Head, rec/play
51	6901580	Push Spring, rec/play head
52	5160380	Special Screw, 2 x 7 (brass)
54	7060270	Pinch Roller Ass'y
	Parts No. 55, 56, 57, 58	
59	6901590	Push Spring
(S17)	5102847	F Type Screw, 3 x 14
60	6901600	Pull Spring, pinch roller ass'y
61	6500910	Cassette Lever
62	6901620	Pull Spring, cassette arm ass'y
	7090010	Cassette Arm Ass'y
(S18)	5152211	CS Ring, 30φ
63	6500920	Cassette Arm
64	6500930	Cassette Arm
65	6500940	Joint
66-A	6901610	Push Spring, cassette arm
66-B	6901650	Push Spring, cassette arm
67	7020030	Bracket Ass'y
69	5241320	Bracket
71	1160260	Micro Switch, rec/play, hold
74	7110030	Counter Ass'y
75	5320490	Counter Knob
76	6030200	Counter Belt
77	6030210	Counter Belt
78	7060280	Plate Ass'y
79	6140160	Counter Pulley
81	1190570	Leaf Switch
82	5300850	Cassette Cover
83	5440080	Lamp Lens
84	5060360	Cassette Guide
85	5500690	Cassette Cushion
86	0400620	Pilot Lamp, 6.3V 30mA
87	5010090	Head Cover Ass'y
88	7010210	Mecha Cover Ass'y
89	5040500	Masking Sheet
90	5500680	Cushion Lever
93	6901560	Plate Spring, mecha cover
(S22)	5101024	B Type Screw, 2.6 x 8
95	6901570	Pull Spring, slide base
97	7060290	Senser-Ass'y
98	7690490	PCB-SENSER Circuit Board Ass'y

<Screws>

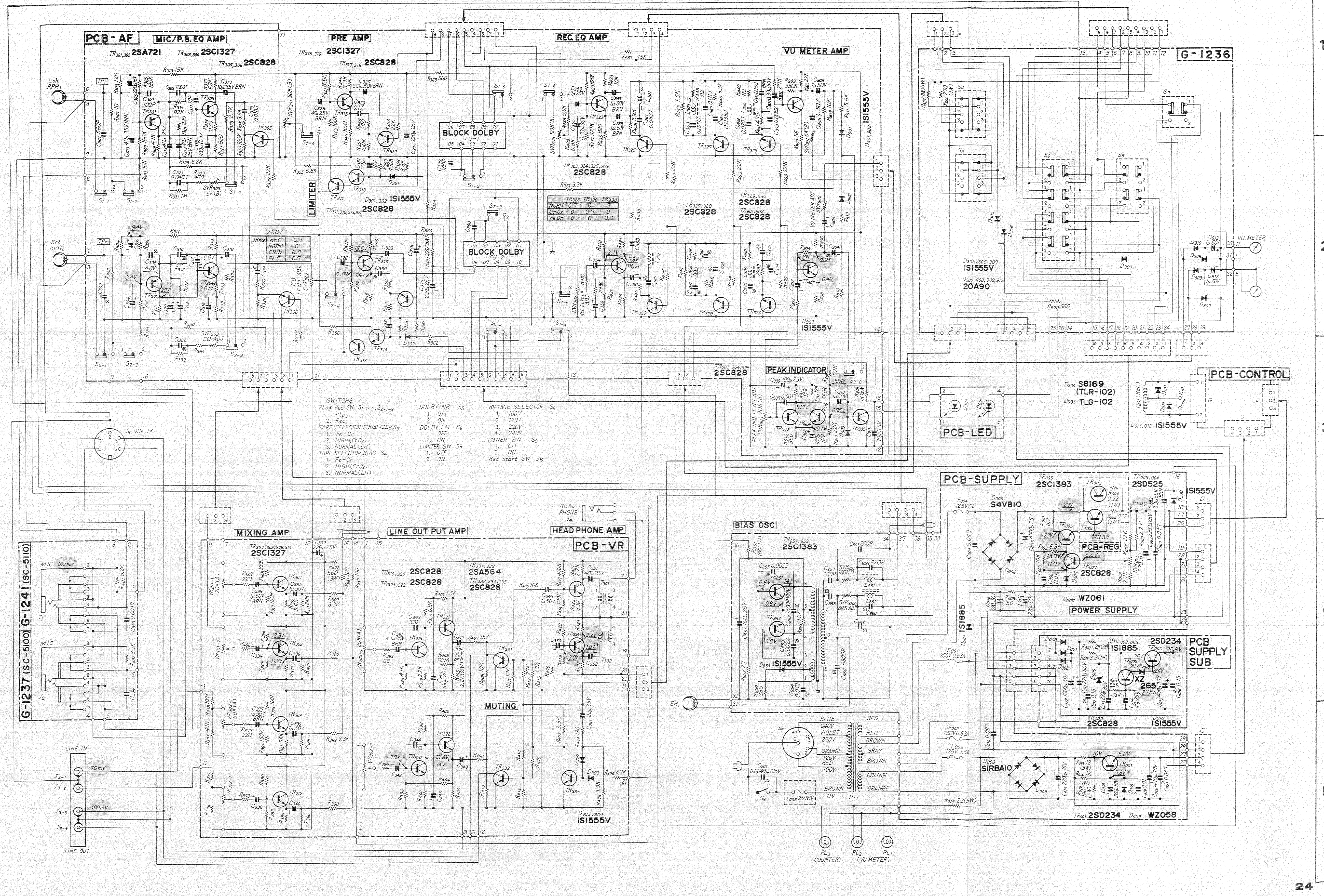
Parts No.	Stock No.	Description
S 1	5101043	B Type, 3 x 6
S 2	5101041	B Type, 3 x 4
S 3	5151005	E Type Washer, 4φ
S 4	5151001	E Type Washer, 1.5φ
S 5	5151002	E Type Washer, 2.0φ
S 6	5151004	E Type Washer, 3.0φ
S 7	5151009	E Type Washer, 12φ
S 8	5101843	BSA Type Screw, 3 x 6
S 9	5151011	E Type Washer 2.5φ
S10	5108961	SC Type Screw, 2.6 x 3
S11	5107813	PSA Type Screw, 2.6 x 5
S12	5107811	BSF Type Screw, 2.6 x 4
S13	5109553	B Type Screw, 3 x 30
S14	5108902	SC Type Screw, 3 x 8
S15	5101002	B Type Screw, 2 x 4
S16	5101004	B Type Screw, 2 x 6
S17	5102847	F Type Screw, 3 x 14
S18	5152211	CS Ring, 30φ
S19	5101022	B Type Screw, 2.6 x 5
S20	5109938	B Type Screw, 2.3 x 10
S21	5104044	F Type Screw, 3 x 8 (black)
S22	5101024	B Type Screw, 2.6 x 8
S23	5109939	B Type Screw, 2.3 x 16
S24	5101021	B Type Screw, 2.6 x 4
S25	5101023	B Type Screw, 2.6 x 6
S26	5101047	B Type Screw, 3 x 14
S27	5109941	Plastic Screw, 3 x 5
S28	5108903	SC Type Screw, 3 x 10

SC-5110 **SC-5110**

* La présentation et les spécifications sont susceptibles d'êter modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
* Design and specifications subject to change without notice for improvements.

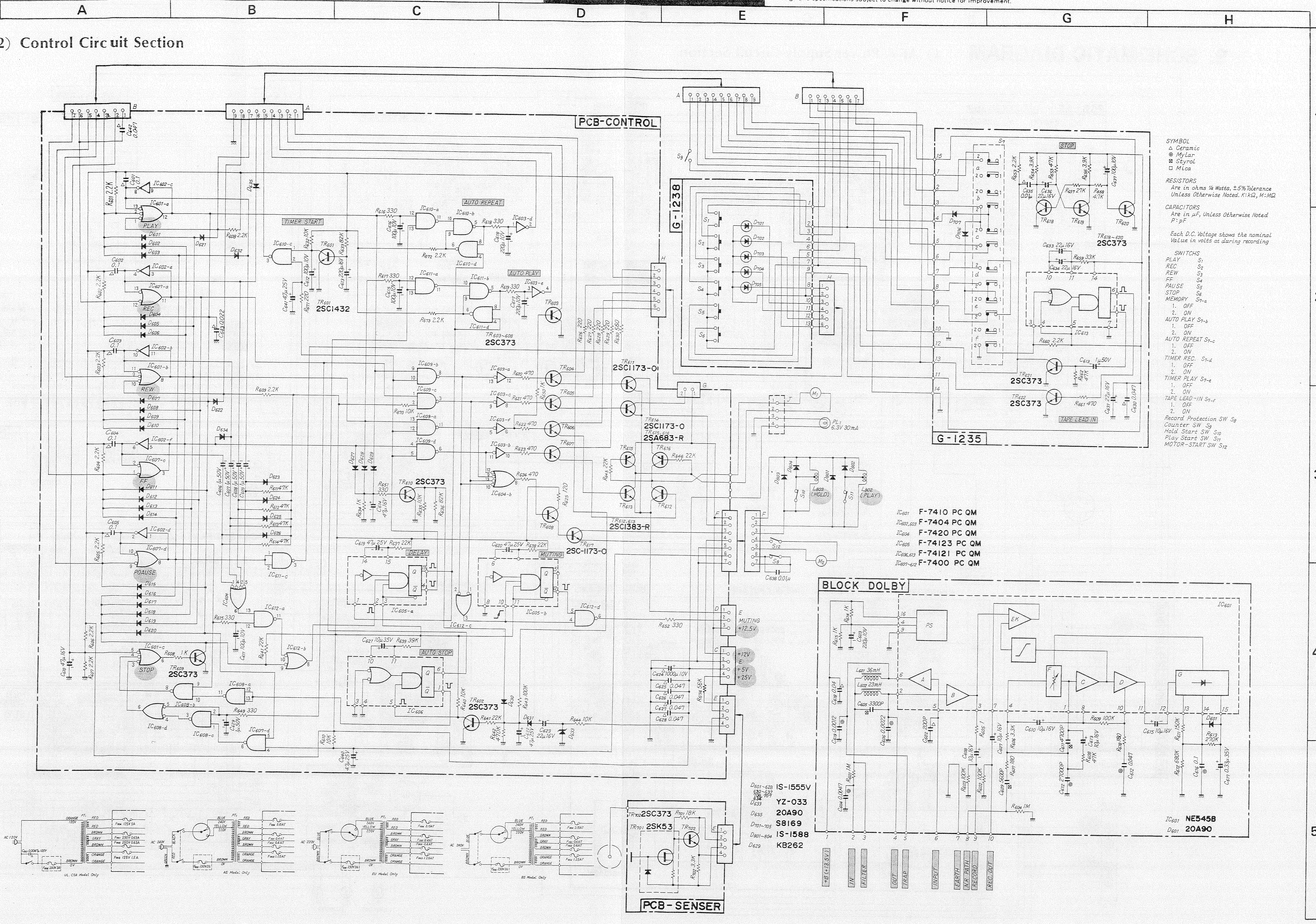
9. SCHEMATIC DIAGRAM

1) AF & Power Supply Circuit Section


A
B
C
D
E
F
G
H
1
2
3
4
5
PCB-AF
MIC/P.B.EQ AMP
TR301,302 2SA721
TR303,304 2SC1327
TR305,306 2SC828
PRE AMP
TR315,316 2SC1327
TR317,318 2SC828
BLOCK DOLBY
FU-1
LIMITER
TR311,312,313,314 2SC828
D301,302 IS1555V
REC.EQ AMP
TR323,324,325,326 2SC828
TR327,328 2SC828
TR329,330 2SC828
TR901,902 2SC828
VU METER AMP
IS1555V
D903 IS1555V
G-1236
D305,306,307 IS1555V
D307,908,909,910 20A90
VU METER
PEAK INDICATOR
TR903,904,905 2SC828
PCB-LED
D904 S8169 (TLR-102)
D905 TLG-102
PCB-CONTROL
D911,912 IS1555V
Lch RPH1
Rch RPH2
J5 DIN JK
G-1237 (SC-5100)
G-1241 (SC-5110)
MIC 0.2mV
J1
MIC
J2
LINE IN
70mV
J3-1
J3-2
J3-3
400mV
J3-4
LINE OUT
SWITCHS
PLay Rec SW S1-1~9, S2-1~9
1. PLay
2. Rec
TAPE SELECTOR.EQUALIZER S3
1. Fe-Cr
2. HIGH(CrO2)
3. NORMAL(LH)
TAPE SELECTOR BIAS S4
1. Fe-Cr
2. HIGH(CrO2)
3. NORMAL(LH)
DOLBY NR S5
1. OFF
2. ON
DOLBY FM S6
1. OFF
2. ON
LIMITER SW S7
1. OFF
2. ON
VOLTAGE SELECTOR S8
1. 100V
2. 120V
3. 220V
4. 240V
POWER SW S9
1. OFF
2. ON
Rec Start SW S10
MIXING AMP
TR307,308,309,310 2SC1327
LINE OUT PUT AMP
TR319,320 2SC828
TR321,322 2SC828
HEAD PHONE J4
HEAD PHONE AMP
TR331,332 2SA564
TR333,334,335 2SC828
PCB-VR
MUTING
D303,304 IS1555V
BIAS OSC
TR851,852 2SC1383
D851 IS1555V
EH1
PCB-SUPPLY
TR005 2SC1383
TR003,004 2SD525
IS1555V
D006 S4VB10
PCB-REG
TR007 2SC828
D007 WZ061
POWER SUPPLY
IS1885
PCB SUPPLY SUB
D001,002,003 IS1885
2SD234
XZ 265
TR002 2SC828
D010 IS1555V
D009 SIRBA10
TR001 2SD234
D009 WZ058
S8
BLUE 240V
VIOLET 220V
ORANGE 120V
RED 100V
BROWN 0V
RED
BROWN
GRAY
BROWN
ORANGE
ORANGE
PT1
S9
F005 250V3A
PL3 (COUNTER)
PL2 (VU METER)
PL1

* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Anderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
* Design and specifications subject to change without notice for improvement.

2) Control Circuit Section


A
B
C
D
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F
G
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PCB-CONTROL
G-1238
G-1235
BLOCK DOLBY
PCB-SENSER
AUTO REPEAT
TIMER START
AUTO PLAY
DELAY
MUTING
AUTO STOP
STOP
TAPE LEAD IN
PLAY
REC
REW
FF
PAUSE
TR601 2SC1432
TR603~608 2SC373
2SC1173-O
TR614 2SC1173-O
TR615,616 2SA683-R
TR612,613 2SC1383-R
TR617 2SC-1173-O
TR610 2SC373
TR609 2SC373
TR602 2SC373
TR618~620 2SC373
TR621 2SC373
TR622 2SC373
TR702 2SC373
TR701 2SK53
IC601 NE5458
D601 20A90
L803 (HOLD)
L802 (PLAY)
PL1 6.3V 30mA
MUTING +12.5V
+12V
+5V
+25V
+B (+13.5V)
IN
FILTER
OUT
TRAP
INPUT
EARTH
REC PATH
RECORD
REC OUT
UL, CSA Model Only
AS Model Only
EU Model Only
BS Model Only

SYMBOL
△ Ceramic
◎ Mylar
⊠ Styrol
□ Mica

RESISTORS
Are in ohms ¼ Watts, ±5% Tolerance
Unless Otherwise Noted. K: kΩ, M: MΩ

CAPACITORS
Are in μF, Unless Otherwise Noted
P: pF

Each D.C. Voltage shows the nominal
Value in volts at during recording

SWITCHS

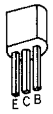
PLAY	S_1
REC	S_2
REW	S_3
FF	S_4
PAUSE	S_5
STOP	S_6
MEMORY	S_{7-a}
1. OFF	
2. ON	
AUTO PLAY	S_{7-b}
1. OFF	
2. ON	
AUTO REPEAT	S_{7-c}
1. OFF	
2. ON	
TIMER REC.	S_{7-d}
1. OFF	
2. ON	
TIMER PLAY	S_{7-e}
1. OFF	
2. ON	
TAPE LEAD-IN	S_{7-f}
1. OFF	
2. ON	
Record Protection SW	S_8
Counter SW	S_9
Hold Start SW	S_{10}
Play Start SW	S_{11}
MOTOR-START SW	S_{12}

IC_{601}	F-7410 PC QM
$IC_{602,603}$	F-7404 PC QM
IC_{604}	F-7420 PC QM
IC_{605}	F-74123 PC QM
$IC_{606,613}$	F-74121 PC QM
$IC_{607\sim612}$	F-7400 PC QM

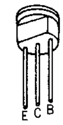
$D_{601\sim628}$ 630~632 706, 707 634	IS-1555V
D_{633}	YZ-033
D_{635}	20A90
$D_{701\sim705}$	S8169
$D_{801\sim804}$	IS-1588
D_{629}	KB262

●Semiconductors

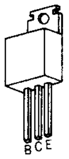
2SA721
2SA564
2SA683
2SC828
2SC1327
2SC1383
2SC1432



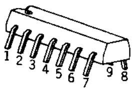
2SC373



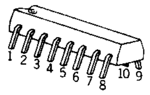
2SC1173
2SD234
2SD525



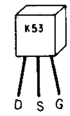
F7410PCQM
F7404PCQM
F7420PCQM
F74121PCQM
F7400PCQM



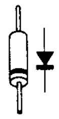
NE545B
F74123PCQM



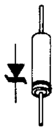
2SK53



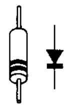
1S1555V
20A90
1S1588



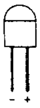
WZ061
XZ265
WZ058
YZ-033



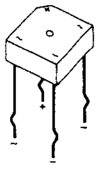
1S1885



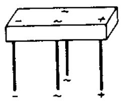
S8169
(LED) (Red)
TLG-102
(LED) (Green)



S4VB10

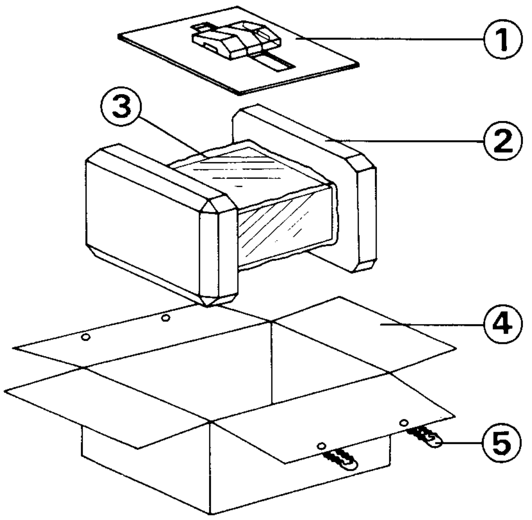


S1RBA10



10. PACKING LIST

Parts No.	Stock No.	Description
1	9100030	Dust Cover Case
2	9020050	Stylofoam Packing
3	9110110	Vinyl Cover
4	9000960	Carton Case
5	5996080	Curl Stopper



11. ACCESSORY PARTS LIST

Stock No.	Description
9230280	Schematic Diagram
9204030	Operating Instructions
9430031	Head Cleaning Pen
3810280	Input-Output Cord
5010100	Dust Cover